

# 2016

# RBWH

## Research Report

## Internal

## Medicine

## Services



# Internal Medicine Services

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**Kate Mason**  
Executive Director  
Internal Medicine Services

Internal Medicine Services is involved in a large volume of research activities across the breadth of our services. Our staff are passionate about research and the benefits for our patients and the broader health communities that are impacted by our research outcomes.

The recently released MN HHS Research Strategy for 2017-2022 notes the main themes for research as diagnostic, therapeutics and health services research. Internal Medicine Services is currently conducting active research within all of these domains.

Excellent Research needs talented and energised people to work from the bedside to the laboratory and involves many different skills sets from our clinical doctors, nurses and health professionals, research assistants, administrative support roles, and of course effective links with diagnostic and tertiary education partners. Our patients are of course one of the greatest assets that our research has with an enormous number of participants involved in diagnostic, therapeutic and health services research across the diversity of services within medicine. Access to clinical trials allows many patients to receive therapies not offered elsewhere under tight monitoring conditions.

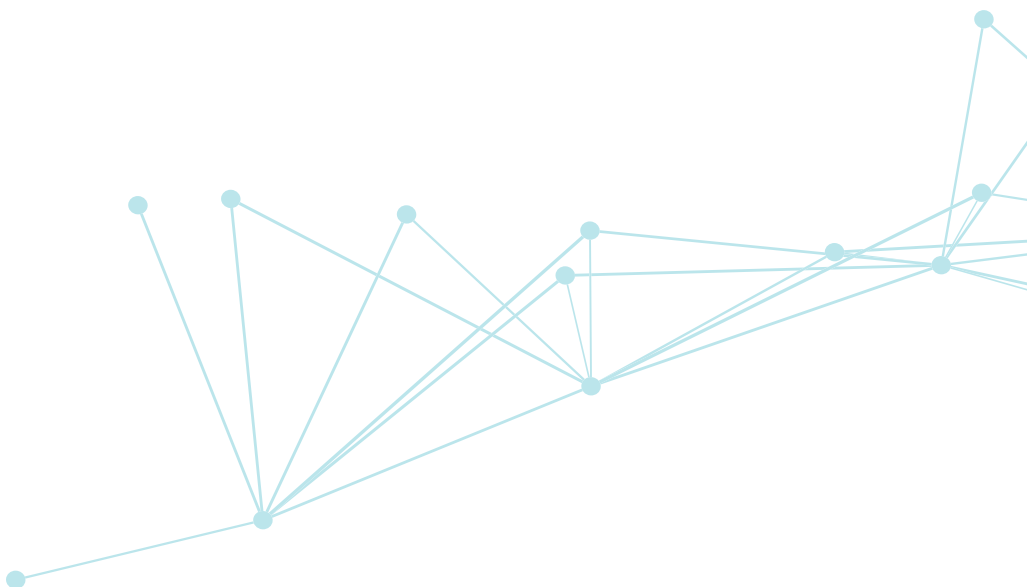
IMS have a wealth of Investigator driven research as well as hundreds of publications, presentations at key professional meetings and authors or co-authors of books or chapters. The sharing of the outcomes of our team's research is one of the prime motivators that propels our staff to spend both funded and discretionary time undertaking this important work.

3 departments within Internal Medicine are actively involved in the Con Joint Internal Medicine Laboratory, a partnership with Chemical Pathology, to advance research in the areas of Renal Medicine, Endocrinology and Hepatology.

Dr Helen Healy is the 2017 IMS Research representative on the RBWH Research Council along with Jye Smith as a council member. Both of these staff have a successful track record with research in their chosen clinical areas. We are very proud of the depth and variety of research undertaken within Internal Medicine and look forward to the results of the hard work that is evident in bringing research into practice and improving our knowledge base every single day.



**Sandy Jamieson**  
Nursing Director  
Internal Medicine Services



# Department of Cardiology

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## About this service:

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The cardiology department has a broad investigator-driven research program with a focus on health service research and evaluation. Much of this 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.

## Highlights of 2016:

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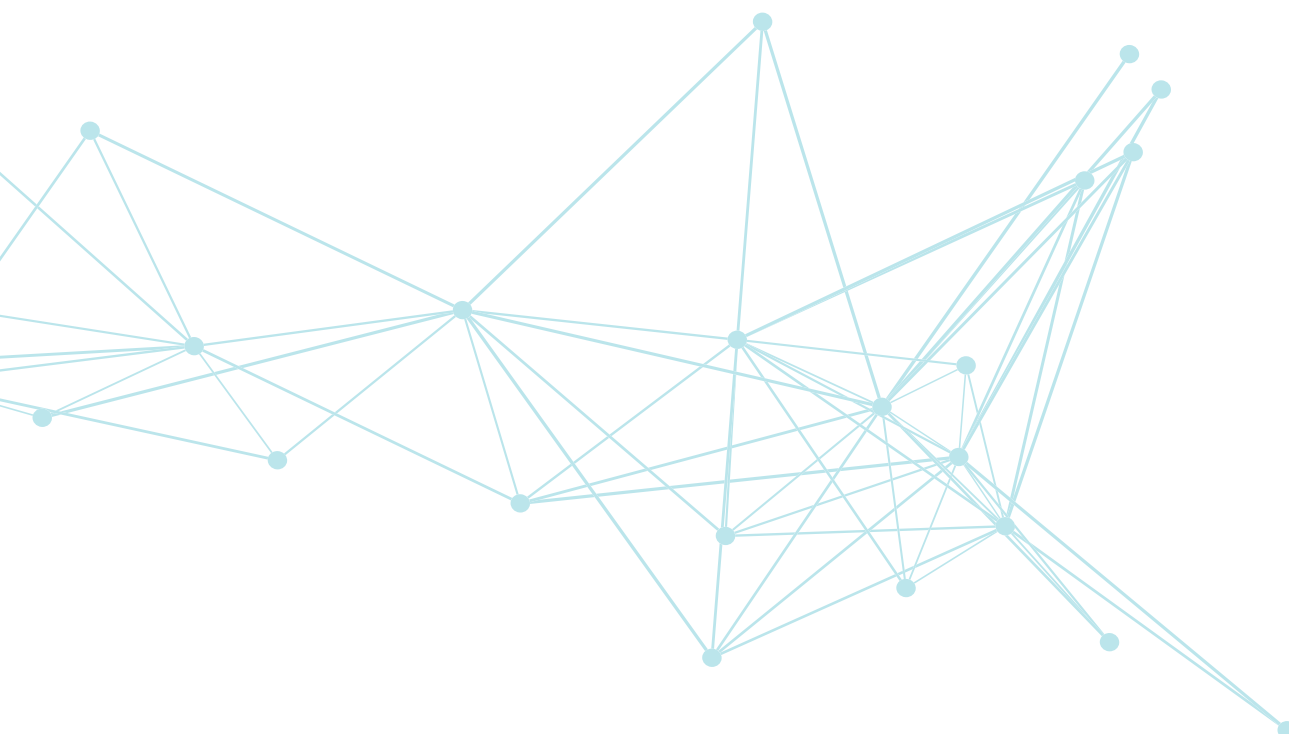
The evaluation of chest pain has involved a collaboration with the emergency department and internal medicine, and resulted in numerous collaborations internationally, successful grant funding, and industry partnerships. We have unique cardiac obstetric (collaboration with Internal Medicine and Obstetric Medicine) and cardiac genetic (collaboration with Genetic Health Queensland) clinics that receive statewide referrals.

Other research interests include investigating ways to detect presymptomatic heart disease using salivary biomarkers (collaboration with QUT), and investigating the feasibility of training nurses to perform echocardiography to assess left ventricular function. This may allow non-invasive and cost-effective early disease detection and monitoring. We have a strong clinical trials research program and have been the lead national and global recruiting site for a number of multicentre trials.

## Benefits for clinical practice:

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Research into the evaluation of patients presenting with chest pain is being actively translated into clinical practice throughout Queensland by the Health Innovation Fund supported Accelerated Chest pain Risk Evaluation (ACRE) clinical redesign project. This research is informing the evaluation of chest pain across Queensland and internationally. We have developed pathways to investigate families who have suffered a sudden death at a young age, which involves collaboration with clinical genetics, forensic pathology and the Coroner's office. We have commenced a Cardiac Catheter Laboratory database with comprehensive mandatory complication tracking, which will inform the Queensland and Australian Cardiac Outcomes Registry. We informed the development of the Heart Failure Reporting Outcomes (HERO) database, which is tracking healthcare measures for all patients referred to heart failure services in Queensland.





## Editorial and other key positions held:

- Professor and Clinical Director, Australian Centre for Health Service Innovation, Queensland University of Technology.
- Associate Editor, Heart Lung Circulation (2 staff members).
- Editorial board for Cardiac Failure Review.
- Associate Cardiac Editor, Australasian Journal of Ultrasound in Medicine.
- European Cardiac Obstetric Registry (only Australian representative).
- 2016 European Society of Cardiology Guidelines on Acute and Chronic Heart Failure official content reviewer (1 of 3 non-European content reviewers).
- National Heart Foundation of Australia and Cardiac Society of Australia and New Zealand (CSANZ) Heart Failure Guidelines Working Group (Chair).
- Therapeutic Guidelines Cardiovascular Expert Group.
- Australian Government Medical Services Advisory Committee (MSAC).
- National Heart Foundation Research Committee.
- CSANZ Board.
- CSANZ Education Trust Board of Trustees.
- CSANZ Queensland Regional Secretary.
- Medicare Benefits Schedule Review Cardiac Services Clinical Committee.
- Australian National Genetic Heart Disease Registry.
- Australian Cardiac Genetic Testing (AGCT) collaborative.
- Brisbane Diamantina Health Partners Evidence and Innovation in Clinical Care Theme Leadership Group.
- Queensland Heart Failure Service Steering Committee (Co-chair), Cardiac Outcomes Registry Steering Committee (Co-Chair), and Heart Failure Reporting Outcomes registry (Chair).
- Queensland Cardiovascular Research Network Steering Committee.

## Supervised Post-graduate Research Students

Name (RBWH staff in bold)	Current Studies (e.g. PhD, Masters etc.)University (duration)	Research Project Title	Supervisors (RBWH staff in bold)
<b>Guppy-Coles, K</b>	PhD, UQ (2013-2017)	Novel 3D echocardiography techniques of left ventricular functional assessment: utilisation in routine clinical practice and screening	<b>John Atherton, Sandhir Prasad, Arnold Ng</b>
Poulter, R	PhD, UQ (2012-2017)	Evaluating the diagnostic performance of dual energy cardiac computed tomography.	<b>John Atherton, John Younger</b>
Lo, A	PhD, UQ (2014-2017)	Identification of new echocardiographic parameters in distinguishing between familial cardiomyopathy genotypic positive patients with and without phenotypic expression.	<b>John Atherton, Arnold Ng, William Wang</b>
McCreanor, Victoria	PhD, QUT (2016-2019)	Identifying high value care for stable coronary artery disease in Australia	Nick Graves, Adrian Barnett, <b>William Parsonage</b>
<b>Lancini, Daniel</b>	PhD, UQ (2015-2021)	Atrial fibrillation in the hospital setting.	<b>Paul Martin, Sandhir Prasad, John Atherton, Louise Cullen, Robert Boots</b>
<b>Prasad, Sandhir</b>	MPhil, UQ (2016-2020)	Left ventricular diastolic dysfunction following myocardial infarction: prevalence, predictors and prognosis.	<b>John Atherton, John Younger</b>
Conradie, Andre	MPhil, UQ (2016-2020)	Determining an absolute risk model (calculator) to optimise the use of DAPT in patients presenting with acute coronary artery syndromes.	<b>John Atherton, Stephen Worthley</b>

## Supervised Post-graduate Research Students

Name	Type of Fellowship	Research Program	University Affiliation (years)
<b>William Parsonage</b>	Professor and Clinical Director, Australian Centre for Health Service Innovation		QUT
Adam Scott	Adjunct Professor	Faculty of Health, School of Public Health	QUT
John Atherton	Adjunct Professor	Faculty of Health	QUT

## Current Research Group / Department Led Research Activity

Research Group / Department Lead Researchers	Collaborative Researchers	Research Project Title
<b>Kris Guppy-Coles, John Atherton, Sandhir Prasad</b>	<b>Arun Dahiya</b> , Arnold Ng, <b>Kym Smith</b> , <b>Ada Lo</b> , Sam Hillier	Novel 3D echocardiography techniques of left ventricular functional assessment: utilisation in routine clinical practice and screening
<b>Ada Lo, John Atherton</b>	Arnold Ng, William Wang, <b>Sandhir Prasad</b>	Identification of new echocardiographic parameters in distinguishing between familial cardiomyopathy genotypic positive patients with and without phenotypic expression.
<b>Sandhir Prasad, John Atherton, John Younger</b>	Liza Thomas, Tony Stanton, <b>James Anderson, Ada Lo, Joanne Sippel, Christopher Kwan, Kym Smith</b>	Left ventricular diastolic dysfunction following myocardial infarction: prevalence, predictors and prognosis.
<b>Sandhir Prasad, John Atherton, Kristyan Guppy-Coles, Po-Ling Inglis, Joanne Sippel</b>	<b>Kym Smith, Ada Lo, Arun Dahiya</b>	Evaluation of oncology staff performing 3D-echocardiographic left ventricular function assessment for monitoring chemotherapy-induced cardiotoxicity.
Sanjoy Paul, Olga Montvida, <b>John Atherton</b>	Kerenaftali Klein, Julius Agbeve	Evaluation of the association of old and new anti-diabetes drugs with the risk of heart failure in patients with type 2 diabetes.
<b>William Parsonage, Louise McCormack</b>	<b>Cullen L, Milburn T, Greenslade J</b> , Starmer G, Stone R, Starmer K (Cairns HHS)	The impact of ImpACT: A protocol to improve emergency chest pain assessment
<b>Adam Scott, Alice McDonald, John Atherton</b>		Tele-Cardiac Investigations to create local access to treatment for patients in the outer western corridor of Qld.
<b>Daniel Lancini, Paul Martin, Sandhir Prasad</b>	<b>Rob Boots</b>	New onset atrial fibrillation in the critically ill
<b>Daniel Lancini, Paul Martin, Sandhir Prasad</b>	<b>Louise Cullen, Jaimi Greenslade</b>	Atrial fibrillation in the emergency chest pain presentation

## Collaborative Research Activity

Collaborative Lead Researchers (RBWH staff in bold)	Your Research Group / Department Researchers	Research Project Title
<b>Jonathan Hall, Michael Barras, John Atherton, Serena Rofail, M Khatun</b> (Pharmacy)	John Atherton	Mineralocorticoid receptor antagonists in heart failure: Incidence of hyperkalaemia and the effect of GFR estimation
<b>Alison Mudge, Charles Denaro, Adam Scott, Julie Adsett</b> , Robert Mullins, G Javorsky, <b>John Atherton</b> , Paul Scuffham, Thomas Marwick, Peter O'Rourke (Department of Internal Medicine and Aged care)	<b>Adam Scott, John Atherton</b>	A supervised exercise programme following hospitalisation for heart failure: does it add to disease management?

Collaborative Lead Researchers (RBWH staff in bold)	Your Research Group / Department Researchers	Research Project Title
Mary Courtney, Jo Wu, Steven McPhail, <b>John Atherton</b> (ACU)	<b>John Atherton</b>	The Cardiac/Diabetes TRANS-CARE Project
Jo Wu, <b>John Atherton</b> , Anne Chang, Mary Courtney, Esben Strodl, Steven McPhail (QUT)	<b>John Atherton</b>	Improving delivery by Ehealth- Assurance for Life (IDEAL)
Chamindie Punyadeera, <b>John Atherton</b> , Benjamin Schulz, Goce Dimeski, Karam Kostner (QUT)	<b>John Atherton</b>	Novel diagnostics for heart failure
Annabel Hickey, <b>Jessica Suna</b> , <b>John Atherton</b> , George Javorsky, <b>Charles Denaro</b> , Andrew Munns, Louise Marquart, <b>Alison Mudge</b> (Metro North HHS)	<b>John Atherton</b>	Enhancing medication titration in patients with heart failure.
Robyn Clark, Vincent Versace, Munir Chowdhury, Alexandra McCarthy, <b>John Atherton</b> , Bogda Koczwara, David Roder (Flinders University)	<b>John Atherton</b>	Characteristics of haematologic and breast cancer patients (1996-2009) who died of heart failure-related causes with and without a prior heart failure hospitalization- A linked health data analysis.
Robyn Clark, Alexandra McCarthy, Robyn Peters, <b>John Atherton</b> (Metro South HHS)	<b>John Atherton</b>	A retrospective clinical audit of medical records to examine the journey through the healthcare system of patients who have developed cardiomyopathy after anticancer therapy.
Robyn Clark, Alexandra McCarthy, <b>John Atherton</b> , Bogda Koczwara, Narelle Berry, Tania Marin, Kerri Gillespie, Jonathon Foote, Sina Vatandoust. (Flinders University)	<b>John Atherton</b>	Development of a cardiotoxicity cardiovascular risk assessment tool.
Dike Ojji, Karen Sliwa, <b>John Atherton</b> , Simon Stewart, Elena Libhaber, Bolaji Abdullahi, Ada Nwankwo, Alfa Jacob, Ngabea Murtala, Lionel Opie, Samuel Ajayi, Manmak Mamven (University of Abuja)	<b>John Atherton</b>	Studies of hypertension and heart failure in Nigeria.
Adrienne O'Neil, Aaron Fisher, Katherine Kibbey, Felice Jacka, Mark Kotowicz, Lana Williams, Amanda Stuart, Michael Berk, Paul Lewandowski, <b>John Atherton</b> , Craig Taylor, Julie Pasco. (University of Melbourne)	<b>John Atherton</b>	The addition of depression to the Framingham risk equation.
Robyn Clark, Bronwyn Fredericks, Natahlia Buitendyk, Michael Adams, Jill Howie-Esquivel, Kathleen Dracup, Narelle Berry, <b>John Atherton</b> , Stella Johnson (Flinders University)	<b>John Atherton</b>	Development and feasibility testing of an education program to improve knowledge and self-care among Aboriginal and Torres Strait Islander patients with heart failure.
Sanjoy Paul, Olga Montvida, <b>John Atherton</b> , Kerenaftali Klein, Julius Agbeve (QIMR)	<b>John Atherton</b>	Evaluation of the association of old and new anti-diabetes drugs with the risk of heart failure in patients with type 2 diabetes.

Collaborative Lead Researchers (RBWH staff in bold)	Your Research Group / Department Researchers	Research Project Title
Joseph Selvanayagam, Sanjay Prasad, Andrew McGavigan, Graham Hillis, Werner Jung, Laurent Billot, Suchi Grover, <b>John Atherton</b> (SAHMRI)	<b>John Atherton, John Younger, Paul Martin</b>	Cardiovascular Magnetic Resonance GUIDEd management of mild-moderate left ventricular systolic Heart Failure (CMR GUIDE HF).
Briffa T, <b>Cullen L</b> , Chew D, Knuiman M, Fatovich D, Hickman P, <b>Parsonage W</b> , Nedkoff L, Sanfilippo F, Hillis G, Mitra B, Wilkes G, Schneider H, Rankin J, Karnon J, Scanlan S, Stapleton S, Mather V.	<b>William Parsonage</b>	Is highly-sensitive troponin testing advancing clinical practice, improving outcomes and cost-effective in the investigation and management of chest pain in the Emergency Department?
Elizabeth Sullivan, Rachael Cordina Dominica Zentner, Michael Peek Rachael Cordina, Lisa Simmons Lawrence Lam, David Celermajer, Wendy Pollock, <b>Karin Lust</b> , Jon Hyett, <b>William Parsonage</b> , Zhuoyang Li	<b>William Parsonage</b>	Australasian Maternity Outcomes Surveillance System (AMOSS) longitudinal study of first-time NSW/ACT mothers with heart disease and their babies
Richard Bagnall, Robert Weintraub, Jodie Ingles, Johan Duflo, Laura Yeates, Lien Lam, Andrew Davis, Tina Thompson, Vanessa Connell, Jennie Wallace, Charles Naylor, Jackie Crawford, Donald Love, Lavinia Hallam, Jodi White, Christopher Lawrence, Matthew Lynch, Natalie Morgan, Paul James, Desirée du Sart, Rajesh Puranik, Neil Langlois, Jitendra Vohra, Ingrid Winship, <b>John Atherton, Julie McGaughran</b> , Jonathan Skinner, Christopher Semsarian (University of Sydney)	<b>John Atherton</b>	A prospective study of sudden death in the young.
Jodie Ingles, Christopher Semsarian, <b>John Atherton</b> , Rajesh Puranik, Tim Driscoll, Aldo Saavedra, Alexander Judge, Ron Grunstein, David Sullivan, Amanda Salis (University of Sydney)	<b>John Atherton</b>	Nonfamilial hypertrophic cardiomyopathy
Tom Marwick, Liza Thomas, Andrew Taylor, Andrew Spencer, Andre La Gerche, Con Tam, Sherene Loi, Peter Mollee, <b>John Atherton</b> , Paul Harnett (Baker IDI)	<b>John Atherton, Sandhir Prasad, Joanne Sippel, Arun Dahiya, Louise McCormack, John Younger</b>	Benefit of 2D-strain surveillance in improving cardiovascular outcomes in cancer patients undergoing cardiotoxic chemotherapy.
<b>Arun Dahiya</b> , Rick Jackson (Logan Hospital)	<b>Arun Dahiya</b>	Advanced Cardiovascular Imaging in Patients with Myotonic Dystrophy.
<b>Adam Scott, Alice McDonald, John Atherton</b>	<b>Adam Scott, Alice McDonald, John Atherton</b>	Tele-Cardiac Investigations to create local access to treatment for patients in the outer western corridor of Qld.

## Research Awards and Achievements

Recipient	Award	Event
<b>John Atherton</b>	Fellowship of the European Society of Cardiology (2016)	European Society of Cardiology Congress 2017
The Emergency Cardiology Group ( <b>William Parsonage</b> , Cardiology Lead)	Integrated Care – Health Services Research	Metro North Research Excellence Awards 2016
The ACRE Team ( <b>William Parsonage</b> , Cardiology Lead)	Team Award for Promoting Clinical Research and Application to Practice 2016	Ko Awatea International Excellence in Health Improvement Awards 2016
<b>William Parsonage</b>	Runner up, Health services research impact award	Health Services Research Association of Australia and New Zealand 2016
Tele-Cardiac Investigations Team ( <b>Adam Scott</b> , Cardiology Lead);	Health Services Award	RBWH Healthcare symposium 2016
Tele-Cardiac Investigations Team ( <b>Adam Scott</b> , Cardiology Lead)	QuARRIES Award “Excellence in Performance”	RBWH QLD 2016

## Research Grants – Awarded

Investigators (RBWH staff in bold)	RBWH Research Groups / Departments	Project Title	Granting Body	Amount in 2016	Total Amount (years)
Chamindie Punyadeera, <b>John Atherton</b> , John Fraser, Karam Kostner.	Cardiology	A saliva test to identify high risk heart failure patients	Heart Foundation Vanguard Grant	\$75,000.00	2016
<b>John Atherton</b> , Sanjoy Paul, Kerenaftali Klein, Olga Montvida, Julius Agbeve.	Cardiology	Evaluation of the association of old and new anti-diabetes drugs with the risk of heart failure in patients with type 2 diabetes.	Royal Brisbane and Women's Hospital Foundation 2016 Research Initiative Grant	\$40,000.00	2016
<b>Sandhir Prasad</b> , <b>Kristyan Guppy-Coles</b> , <b>Po-Ling Inglis</b> , <b>John Atherton</b> , <b>Kym Smith</b> , <b>Ada Lo</b> , <b>Arun Dahiya</b> .	Cardiology	Evaluation of oncology nurses performing 3D-echocardiographic left ventricular function assessment for monitoring chemotherapy induced cardiotoxicity.	Royal Brisbane and Women's Hospital 2016 Research Project Grant	\$40,000.00	2016
<b>Cullen L</b> , <b>Parsonage W</b> , <b>McCormack L</b> , <b>Milburn T</b> , Starmer G, Stone R, Starmer K, <b>Greenslade J</b>	Cardiology and Emergency Medicine	The impact of ImpACT: A protocol to improve emergency chest pain assessment	Australian Centre for Health Service Innovation: Partnership Grant	\$110,000.00	2016-18
<b>Adam Scott</b>	Cardiology	Tele-stress testing to help our rural hospitals	MNHHS CEO Grant	\$17,500	2016
<b>Adam Scott</b>	Tele-Cardiac Investigations Team	Telehealth Cardiac Investigations	Clinical Excellence Division Qld Health	\$1,515,000	2016 – 2019
<b>Daniel Lancini</b> , <b>Paul Martin</b> , <b>Sandhir Prasad</b> , <b>Jaimi Greenslade</b> , <b>Louise Cullen</b>	Cardiology and Emergency Medicine	Atrial fibrillation in the emergency chest pain presentation	RBWH and RBWH Foundation Research Project Grant 2017	\$15,335.88	2017



## 2016 Research Publications

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal Article	O'Neil A, Fisher AJ, Kibbey K, Jacka FN, Kotowicz MA, Williams LJ, Stuart AL, Berk M, Lewandowski PA, <b>Atherton JJ</b> , Taylor CB, Pasco JA. The addition of depression to the Framingham Risk Equation model for predicting coronary heart disease risk in women. <b>Preventive Medicine</b> 2016;87:115-20. doi: 10.1016/j.ypmed.2016.02.028. PMID:26906397.
Journal Article	<b>Hayman S, Atherton JJ</b> . Should angiotensin receptor neprilysin inhibitors replace angiotensin converting enzyme inhibitors in heart failure with a reduced ejection fraction? <b>Cardiac Failure Review</b> 2016;2:47-50.
Journal Article	Ojji DB, Opie LH, Lecour S, <b>Atherton JJ</b> , Blauwet LA, Lacerda L, Adeyemi O, Abdullahi B, Nwankwo A, Sliwa K. Right ventricular systolic dysfunction is common in hypertensive heart failure: A prospective study in Sub-Saharan Africa. <b>PLoS ONE</b> 2016 Apr 13;11(4):e0153479. doi: 10.1371/journal.pone.0153479. PMID:27073856.
Journal Article	<b>Carroll R, Mudge A, Suna J, Denaro C, Atherton J</b> . Prescribing and up-titration in recently hospitalized heart failure patients attending a disease management program. <i>Int J Cardiol</i> 2016;216:121-7. doi: 10.1016/j.ijcard.2016.04.084. Epub 2016 Apr 16. PMID:27153136.
Journal Article	Zhang X, Chata R, Wan Y, <b>Brazzale A, Atherton JJ</b> , Kostner K, Dimeski G, Punyadeera C. A pilot study to demonstrate diagnostic potential of galectin-3 levels in saliva. <i>J Clin Path</i> 2016 Jun 23. pii: jclinpath-2016-203631. doi: 10.1136/jclinpath-2016-203631. [Epub ahead of print] PMID: 27340130.
Journal Article	Versace VL, Berry NM, Chowdhury MH, Ullah S, McCarthy AL, <b>Atherton JJ</b> , Koczwara B, Roder D, Clark RA. Characteristics of patients with haematological and breast cancer (1996-2009) who died of heart failure-related causes after cancer therapy. <i>ESC Heart Failure</i> 2016;3:253-60. doi: 10.1002/ehf2.12099.
Journal Article	Iyngkaran P, Kangaharan N, Zimmet H, Arstall M, Minson R, Thomas MC, Bergin P, <b>Atherton J</b> , MacDonald P, Hare DL, Horowitz JD, Ilton M. Heart failure in minority populations - impediments to optimal treatment in Aboriginal Australians. <i>Curr Cardiol Rev</i> 2016;12:166-79.
Journal Article	Bagnall, RD, Weintraub RG, Ingles J, Duflou J, Yeates L, Lam L, Davis AM, Thompson T, Connell V, Wallace J, Naylor C, Crawford J, Love DR, Hallam L, White J, Lawrence C, Lynch M, Morgan N, James P, du Sart D, Puranik R, Langlois N, Vohra J, Winship I, <b>Atherton J, McGaughan J</b> , Skinner JR, Semsarian C. A prospective study of sudden cardiac death among children and young adults. <i>New Engl J Med</i> 2016;374:2441-52. doi: 10.1056/NEJMoa1510687. PMID:27332903.
Journal Article	Ojji D, Stewart S, <b>Atherton J</b> , Ajayi S, Mamven M, Murtala N, Ojji O, Sliwa K. Ten-year coronary artery disease risk in 1571 newly presenting hypertensive black subjects. <b>J Community Med Health Educ</b> 2016;6(3):1000442.
Journal Article	Ponikowski P, Voors AA, Anker SD, Bueno H, Cleland JG, Coats AJ, Falk V, González-Juanatey JR, Harjola VP, Jankowska EA, Jessup M, Linde C, Nihoyannopoulos P, Parissis JT, Pieske B, Riley JP, Rosano GM, Ruilope LM, Ruschitzka F, Rutten FH, van der Meer P; Authors/Task Force Members; Document Reviewers. 2016 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure: The Task Force for the diagnosis and treatment of acute and chronic heart failure of the European Society of Cardiology (ESC) Developed with the special contribution of the Heart Failure Association (HFA) of the ESC. <i>Eur Heart J</i> 2016;37:2129-200. <b>(Official content reviewer)</b>
Journal Article	Clark RA, Berry NM, Chowdhury MH, McCarthy AL, Ullah S, Versace VL, <b>Atherton JJ</b> , Koczwara B, Roder D. Heart failure following cancer treatment: Characteristics, survival and mortality of a linked health data analysis. <b>Int Med J</b> 2016;46:1297-1306. doi: 10.1111/imj.13201.
Journal Article	Hickey A, <b>Suna J</b> , Marquart L, <b>Denaro C</b> , Javorsky G, Munns, A, <b>Mudge A, Atherton JJ</b> . Improving medication titration in heart failure by embedding a structured medication titration plan. <b>Int J Cardiol</b> 2016;224:99-106. doi.org/10.1016/j.ijcard.2016.09.001.
Journal Article	Neumann JT, Sörensen NA, Ojeda F, Schwemer T, Lehmacher J, Gönner S, Jarsetz N, Keller T, Schaefer S, Renné T, Landmesser U, Clemmensen P, Makarova N, Schnabel RB, Zeller T, Karakas M, Pickering JW, Than M, <b>Parsonage W, Greenslade J, Cullen L</b> , Westermann D, Blankenberg S. Immediate Rule-Out of Acute Myocardial Infarction Using Electrocardiogram and Baseline High-Sensitivity Troponin I. <b>Clin Chem</b> 2017 Jan;63(1):394-402.
Journal Article	Jin H, <b>Greenslade JH, Parsonage WA, Hawkins T</b> , Than M, <b>Cullen L</b> . Does Uric Acid Level Provide Additional Risk Stratification Information in Emergency Patients With Symptoms of Possible Acute Coronary Syndrome? <b>Crit Pathw Cardiol</b> 2016 Dec;15(4):169-173.
Journal Article	Pickering JW, <b>Greenslade JH, Cullen L, Flaws D, Parsonage W</b> , Aldous S, George P, Worster A, Kavsak PA, Than MP. Assessment of the European Society of Cardiology 0-Hour/1-Hour Algorithm to Rule-Out and Rule-In Acute Myocardial Infarction. <b>Circulation</b> 2016 Nov 15;134(20):1532-1541.
Journal Article	<b>Iliceto A, Berndt SL, Greenslade JH, Parsonage WA, Hammett C, Than M, Hawkins T, Parker K, O'Kane S, Cullen L</b> . Agreement Between Patient-reported and Cardiology-adjudicated Medical History in Patients With Possible Ischemic Chest Pain: An Observational Study. <b>Crit Pathw Cardiol</b> 2016 Sep;15(3):121-5.
Journal Article	Carlton E, <b>Greenslade J, Cullen L</b> , Body R, Than M, Pickering JW, Aldous S, Carley S, Hammett CJ, Kendall J, Keevil B, Lord S, <b>Parsonage W</b> , Greaves K. Evaluation of High-Sensitivity Cardiac Troponin I Levels in Patients With Suspected Acute Coronary Syndrome. <b>JAMA Cardiol</b> 2016 Jul 1;1(4):405-12.

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal Article	Neumann JT, Sørensen NA, Schwemer T, Ojeda F, Bourry R, Sciacca V, Schaefer S, Waldeyer C, Sinning C, Renné T, Than M, <b>Parsonage W</b> , Wildi K, Makarova N, Schnabel RB, Landmesser U, Mueller C, <b>Cullen L</b> , <b>Greenslade J</b> , Zeller T, Blankenberg S, Karakas M, Westermann D. Diagnosis of Myocardial Infarction Using a High-Sensitivity Troponin I 1-Hour Algorithm. <b>JAMA Cardiol</b> 2016 Jul;1(4):397-404.
Journal Article	Flaws D, Than M, Scheuermeyer FX, Christenson J, Boychuk B, <b>Greenslade JH</b> , Aldous S, <b>Hammett CJ</b> , <b>Parsonage WA</b> , Deely JM, Pickering JW, Cullen L. External validation of the emergency department assessment of chest pain score accelerated diagnostic pathway (EDACS-ADP). <b>Emerg Med J</b> 2016 Jul 12. pii:emermed-2015-205028.
Journal Article	<b>Parsonage WA</b> , Mueller C, <b>Greenslade JH</b> , Wildi K, Pickering J, Than M, Aldous S, Boeddinghaus J, <b>Hammett CJ</b> , Hawkins T, Nestelberger T, Reichlin T, Reidt S, Rubin Gimenez M, <b>Tate JR</b> , Twerenbold R, <b>Ungerer JP</b> , <b>Cullen L</b> . Validation of NICE diagnostic guidance for rule out of myocardial infarction using high-sensitivity troponin tests. <b>Heart</b> 2016 Aug;102(16):1279-86
Journal Article	van Hagen IM, Boersma E, Johnson MR, Thorne SA, <b>Parsonage WA</b> , Escribano Subías P, Lesniak-Sobelga A, Irtyuga O, Sorour KA, Taha N, Maggioni AP, Hall R, Roos-Hesselink JW; ROPAC investigators and EORP team. Global cardiac risk assessment in the Registry Of Pregnancy And Cardiac disease: results of a registry from the European Society of Cardiology <b>Eur J Heart Fail</b> 2016 May;18(5):523-33.
Journal Article	Pickering JW, <b>Greenslade JH</b> , <b>Cullen L</b> , <b>Flaws D</b> , <b>Parsonage W</b> , George P, Worster A, Kavsak PA, Than MP. Validation of presentation and 3 h high-sensitivity troponin to rule-in and rule-out acute myocardial infarction. <b>Heart</b> 2016 Mar 8.
Journal Article	Cheng Q, <b>Greenslade JH</b> , <b>Parsonage WA</b> , Barnett AG, Merollini K, Graves N, Peacock WF, <b>Cullen L</b> . Change to costs and lengths of stay in the emergency department and the Brisbane protocol: an observational study. <b>BMJ Open</b> 2016 Feb 25;6(2)
Journal Article	Boeddinghaus J, Reichlin T, <b>Cullen L</b> , <b>Greenslade JH</b> , <b>Parsonage WA</b> , <b>Hammett C</b> , Pickering JW, <b>Hawkins T</b> , Aldous S, Twerenbold R, Wildi K, Nestelberger T, Grimm K, Rubini-Gimenez M, Puelacher C, Kern V, Rentsch K, Than M, Mueller C. Two-Hour Algorithm for Triage toward Rule-Out and Rule-In of Acute Myocardial Infarction by Use of High-Sensitivity Cardiac Troponin. <b>Clin Chem</b> 2016 Mar;62(3):494-504.
Journal Article	<b>Cullen L</b> , <b>Greenslade JH</b> , Menzies L, Leong A, Than M, Pemberton C, Aldous S, Pickering J, <b>Dalton E</b> , Crosling B, Foreman R, <b>Parsonage WA</b> . Time to presentation and 12-month health outcomes in patients presenting to the emergency department with symptoms of possible acute coronary syndrome. <b>Emerg Med J</b> 2016 Jun;33(6):390-5.
Journal Article	<b>Cullen L</b> , <b>Greenslade JH</b> , Carlton EW, Than M, Pickering JW, Ho A, Greaves K, Berndt SL, Body R, Ryan K, <b>Parsonage WA</b> . Sex-specific versus overall cut points for a high sensitivity troponin I assay in predicting 1-year outcomes in emergency patients presenting with chest pain. <b>Heart</b> 2016 Jan;102(2):120-6.
Journal Article	Farshid A, Brieger D, Hyun K, <b>Hammett CJ</b> , Ellis C, Rankin J, Lefkovits J, Chew D, French J. Characteristics and clinical course of STEMI patients who received no reperfusion in the Australia and New Zealand SNAPSHOT ACS Registry. <b>Heart, Lung and Circulation</b> 2016; 25:132-9.
Journal Article	Montalescot G, van 't Hof AW, Bolognese L, Cantor WJ, Cequier A, Chettibi M, Collet JP, Goodman SG, <b>Hammett CJ</b> , Huber K, Janzon M, Lapostolle F, Lassen JF, Licour M, Merkely B, Salhi M, Silvain J, Storey RF, ten Berg JM, Tsatsaris A, Zeymer U, Vicaut E, Hamm CW, for the ATLANTIC investigators. Effect of Pre-Hospital Ticagrelor in the First 24 Hours After Primary PCI In Patients With ST-Segment Elevation Myocardial Infarction - the ATLANTIC-H24 Analysis. <b>JACC Interventions</b> 2016; 997:646-56.
Journal Article	Etaher A, Chew DP, Redfern J, Briffa TG, Ellis C, <b>Hammett CJ</b> , Lefkovits J, Elliott J, Cullen L, Brieger D, French JK. Suspected ACS Patients Presenting with Myocardial Damage or a Type 2 Myocardial Infarction have a Similar Late Mortality to Patients with a Type 1 Myocardial Infarction; A report from the Australian and New Zealand 2012 SNAPSHOT ACS study. <b>Heart, Lung and Circulation</b> 2016; online 31 December 2016.
Journal Article	Kostner K, Nicholls S, Amerena J, Brown A, Cooper M, <b>Hammett CJ</b> , O'Brien R, Kritharides L, Hare DL, Watts GF, Aylward P. Intensive LDL reduction post Acute Coronary Syndromes: A catalyst for improved outcomes. <b>Heart, Lung and Circulation</b> 2016;26: 1051-4.
Journal Article	Burrage M, <b>Dahiya A</b> , Ng AC, Korczyk D. Multimodality imaging of a rare case of cardiac lipomatosis. <b>Eur Heart J Cardiovasc Imaging</b> 2017;18:115 (published 27 Sep 2016).
Journal Article	<b>Parsonage W</b> , <b>Lust K</b> . 'Cardiac disease in pregnancy' in 'Examination Obstetrics and Gynaecology' 4th Edition 2017 Eds. Goh J and Flynn M. Elsevier ISBN 9780729542524.

## 2016 Conference Presentations – Invited Speaker, Oral and Poster

Type (Oral / Poster / Invited)	Presentation information (RBWH staff in bold)
Invited	<b>Atherton JJ.</b> The year in heart failure. 3rd International 4 Corners of Cardiology Meeting, Melbourne, February 2016.
Invited	<b>Atherton JJ.</b> An update on the management of chronic heart failure. National webcast, Novartis Office, Sydney, March 2016.
Invited	<b>Atherton JJ.</b> Update in Heart Failure - What it means to clinical practice. Mt Elizabeth Medical Centre, Singapore, May 2016.
Invited	<b>Atherton JJ.</b> Management of chronic heart failure. Singapore Cardiac Society (SCS) 28th Annual Scientific Meeting, Singapore, May 2016
Invited	<b>Atherton JJ.</b> What the cardiologist must do before considering a genetic test. International Clinical Cardiovascular Genetics Conference Educational Day, Brisbane Convention and Exhibition Centre, May 2016. (flight delays prevented my on-time arrival, so talk given by Dominic Abrams).
Invited	<b>Atherton JJ.</b> Risk stratification and sudden death. International Clinical Cardiovascular Genetics Conference, Brisbane Convention and Exhibition Centre, May 2016.
Invited	<b>Atherton JJ.</b> Debate: You only treat the phenotype, not the genotype: FOR. International Clinical Cardiovascular Genetics Conference, Brisbane Convention and Exhibition Centre, May 2016.
Invited	<b>Atherton JJ.</b> Multidisciplinary State-specific management of heart failure workshop. Heart Failure 2016, Pullman and Mecure Albert Park, Melbourne, June 2016.
Invited	<b>Atherton JJ.</b> Heart failure detection using saliva (Keynote speaker). 1st Saliva Technology Application Research Symposium (STARS) 2016, Queensland University of Technology, July 2016.
Invited	<b>Atherton JJ.</b> 2nd Rising Star Mentor/ Mentee Dinner. 64th Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand, South Australian Health and Medical Research Institute (SAHMRI), Adelaide, August 2016.
Invited	<b>Atherton JJ.</b> Iron deficiency in heart failure. 64th Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand, Adelaide Convention Centre, Adelaide, August 2016.
Invited	<b>Atherton JJ.</b> Heart failure- What is different in the Asia-Pacific? European Society of Cardiology (ESC) Congress 2016, Rome, Italy, August 2016.
Invited	<b>Atherton JJ.</b> Development of a statewide heart failure disease management service. Nigerian Cardiac Society 45th Annual General and Scientific Meeting, Abuja, Nigeria, September 2016. (not attended in person due to Visa delays)
Invited	<b>Atherton JJ.</b> Diagnosis of heart failure. Nigerian Cardiac Society 45th Annual General and Scientific Meeting, Abuja, Nigeria, September 2016. (not attended in person due to Visa delays)
Invited	<b>Atherton JJ.</b> Managing the heart failure patient- the past, the present and the future. Nigerian Cardiac Society 45th Annual General and Scientific Meeting, Abuja, Nigeria, September 2016. (not attended in person due to Visa delays)
Invited	<b>Atherton JJ.</b> Echo in infiltrative cardiomyopathies. Australasian Society for Ultrasound in Medicine (ASUM) 46th Annual Scientific Meeting (Theme: State of the Art Echocardiography), Brisbane, October 2016.
Invited	<b>Prasad, SB.</b> Diastolic Function Guidelines 2016. Australasian Society for Ultrasound in Medicine (ASUM) 46th Annual Scientific Meeting (Theme: State of the Art Echocardiography), Brisbane, October 2016.
Invited	<b>Prasad, SB.</b> Co-arcuation of the Aorta. Australasian Society for Ultrasound in Medicine (ASUM) 46th Annual Scientific Meeting (Theme: State of the Art Echocardiography), Brisbane, October 2016.
Invited	<b>Hammett CJ.</b> Plenary Lecture. Management of STEMI patients with multivessel disease – just culprit lesion, or complete make-over?. Philippines Heart Association Annual Convention & Scientific Meeting, 25 May 2016.
Invited	<b>Hammett CJ.</b> Management of NOACs in patients undergoing cardiac and non-cardiac procedures. 3rd International 4 Corners of Cardiology Meeting, Melbourne 6 February 2016.
Invited	<b>Hammett CJ.</b> ACS Systems of Care Leaders Forum 2016, Sydney 23-25 July 2016. Regional ACS care – what have we learned from SNAPSHOT?
Invited	<b>Hammett CJ.</b> Use of medications to reduce the short and long term risk for ACS patients – the PERMIT Programme consensus recommendations. Cardiac Society of Australia and New Zealand 64th Annual Scientific Meeting, Adelaide 5 August 2016.
Invited	<b>Hammett CJ.</b> STEMI and ACS Update 2016. Cardiology Congress Round Up, Sydney 17 September 2017.
Invited	<b>Hammett CJ.</b> Systems of care for STEMI in Australia – Challenging the Status Quo. STEMI Experts Forum Melbourne 16 September 2016.
Invited	<b>Hammett CJ.</b> Minimising risk for patients on anticoagulant therapy undergoing procedures. Thrombosis College Cardiovascular Alliance meeting, Sydney 7 May 2016.
Invited	<b>Dahiya A.</b> Pericardial diseases Cardiac Society of Australia and New Zealand 64th Annual Scientific Meeting, Adelaide, August 2016.
Invited	<b>Dahiya A.</b> Multi-modality imaging. Australasian Society for Ultrasound in Medicine (ASUM) 46th Annual Scientific Meeting (Theme: State of the Art Echocardiography), Brisbane, October 2016.

Type (Oral / Poster / Invited)	Presentation information (RBWH staff in bold)
Invited	<b>Dahiya A.</b> Interesting cases. Australasian Society for Ultrasound in Medicine (ASUM) 46th Annual Scientific Meeting (Theme: State of the Art Echocardiography), Brisbane, October 2016.
Invited	<b>Dahiya A.</b> Cardio-oncology. Australasian Society for Ultrasound in Medicine (ASUM) 46th Annual Scientific Meeting (Theme: State of the Art Echocardiography), Brisbane, October 2016.
Oral – Nursing Prize Finalist	<b>Milburn T, Ashover S, Skoien W, Cullen L, Greenslade J, Parsonage W.</b> A Large Scale Implementation of the Adapt Accelerated Diagnostic Protocol into Clinical Practice in Queensland: Impact on Hospital Length of Stay and Admission Rates for Possible Cardiac Chest Pain. 64th Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand, Adelaide Convention Centre, Adelaide, August 2016.
Oral	Wu C-J, <b>Atherton J</b> , McPhail S, Courtney M, Jean KA, Hsu Y. Development of a tool to ensure consistency in delivering a cardiac-diabetes transcare program. Australasian Cardiovascular Nursing College Conference, Melbourne, March 2016.
Oral	<b>Koitka K, Prasad S, Atherton J.</b> Myofibrillar myopathy due to a novel desmin gene mutation presenting with cardiac conduction abnormality and arrhythmias. European Society of Cardiology Congress, Rome, Italy, August 2016
Oral	<b>Milburn T, Ashover S, Skoien W, Parsonage W, Greenslade J, Bright S, Cullen L.</b> Economic Impact of the Accelerated Chest Pain Risk Evaluation (ACRE) Project – A Large Scale Implementation of the ADAPT Accelerated Diagnostic Protocol into Clinical Practice. 64th Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand, Adelaide Convention Centre, Adelaide, August 2016
Oral	Neumann JT, Soerensen N, Schwemer T, Ojeda F, Keller T, Renne T, Than M, <b>Parsonage W</b> , Schnabel R, <b>Cullen L, Greenslade J</b> , Zeller T, Karakas M, Blankenberg S, Westermann D Rapid measurement of a single troponin I combined with negative ECG allow accurate rule-out of NSTEMI in patients with suspected AMI. European Society of Cardiology (ESC) Congress 2016, Rome, Italy, August 2016.
Oral	<b>Lancini D, Martin P, Cullen L, Greenslade J, Hammett C, Prasad S, Than M, Parsonage W.</b> Impact of atrial fibrillation on outcomes after emergency chest pain presentation. 9th Annual Asia-Pacific Heart Rhythm Society (APHRS) Scientific Session. COEX, Seoul, South Korea, October 2016.
Oral	<b>Lancini D, Martin P, Cullen L, Greenslade J, Hammett C, Prasad S, Than M, Parsonage W.</b> The prognostic impact of atrial fibrillation in the emergency chest pain presentation. 64th Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand (CSANZ), Adelaide Convention Centre, Adelaide, August 2016.
Poster (Moderated)	Berry NM, Ullah S, Versace V, McCarthy A, <b>Atherton J</b> , Roder D, Koczwarra B, Coghlan D, Chowdhury MH, Clark RA. Heart failure following cancer therapy in patients with haematological malignancies aged 18 years and under: a linked health data analysis (1996-2009). Circulation 2016;133:AMP33. American Heart Association's Epidemiology and Prevention, Lifestyle and Cardiometabolic Health Scientific Sessions.
Poster (Moderated)	<b>Parsonage W, Ashover S, Milburn T, Skoien W, Greenslade J, Cullen L</b> Translation of the ADAPT accelerated diagnostic protocol into clinical practice: impact on hospital length of stay and admission rates for possible cardiac chest pain European Society of Cardiology (ESC) Congress 2016, Rome, Italy, August 2016.
Poster	<b>Lau K, Martin P, Chia K, McGaughan J, Atherton J.</b> Long QT syndrome associated with a mutation in the beta3 subunit of the cardiac sodium channel (SCN3B) gene in two siblings. Heart Lung Circ 2016;25(Suppl 2):S284. 64th Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand, Adelaide Convention Centre, Adelaide, August 2016.
Poster	<b>Kwan C, Prasad S, Guppy-Coles K, Carr L, Camuglia A, Dooris M, Atherton J.</b> E/E' ratio as a noninvasive measure of left ventricular filling pressure in patients with non-ST elevation acute coronary syndromes (NSTEACS). Heart Lung Circ 2016;25(Suppl 2):S227. 64th Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand, Adelaide Convention Centre, Adelaide, August 2016.
Poster	Grover S, Lloyd R, Perry R, Lou P, Srinivasan G, Haan E, Yeates L, Woodman R, <b>Atherton J</b> , Semsarian C, Selvanayagam J. Assessment of myocardial oxygenation, strain and diastology in MBYPC3 hypertrophic cardiomyopathy: A cardiovascular magnetic resonance and echocardiography study. Heart Lung Circ 2016;25(Suppl 2):S74. 64th Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand, Adelaide Convention Centre, Adelaide, August 2016.
Poster	<b>Michael A, Prasad S, Hammett C, Atherton J.</b> Impact of the introduction of CT coronary angiography on alternative tests for the diagnosis of coronary artery disease: Australia-wide. Heart Lung Circ 2016;25(Suppl 2):S47. 64th Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand, Adelaide Convention Centre, Adelaide, August 2016.
Poster	Khan E, Brieger D, Amerena J, <b>Atherton J</b> , Farshid A, Ilton M, Juergens C, Kangaharan N, Rajaratnam R, Sweeney A, Walters D, Chow C. Gender differences in hospital management of ST-Elevation myocardial infarction patients. Heart Lung Circ 2016;25(Suppl 2):S46. 64th Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand, Adelaide Convention Centre, Adelaide, August 2016.
Poster	<b>Lin A, Kwan C, Sippel J, Guppy-Coles K, Hammett C, Thomas L, Atherton JJ, Prasad SB.</b> E/e' is a powerful predictor of survival after a first-ever non-ST elevation myocardial infarction. American Heart Association Scientific Sessions, New Orleans, USA, November 2016.
Poster	Neumann JT, Soerensen N, Ojeda F, Schwemer T, Keller T, Renne T, Landmesser U, Clemmensen P, Schnabel R, Zeller T, Karakas M, Than M, <b>Parsonage W, Greenslade J, Cullen L</b> , Blankenberg S, Westermann Immediate Rule-out of Acute Myocardial Infarction Using Electrocardiogram and Baseline High-sensitivity Troponin I. American Heart Association Scientific Sessions, New Orleans, USA, November 2016.

Type (Oral / Poster / Invited)	Presentation information (RBWH staff in bold)
Poster	Skoien W, Ashover S, Milburn T, Page K, <b>Cullen L, Parsonage W</b> . Research Translation: Implementation of the Queensland Accelerated Chest Pain Risk Evaluation (ACRE) Project. 64th Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand, Adelaide Convention Centre, Adelaide, August 2016.
Poster	<b>Freeman V, Hammett C, Stewart P, Martin P</b> . Exertional Syncope in Athletic Middle Aged Males without Angina: Consider Ischaemic Ventricular Tachycardia. 64th Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand, Adelaide Convention Centre, Adelaide, August 2016.
Poster	Astley C, Ranasinghe I, Brieger D, Ellis C, Redfern J, Briffa T, Aliprandi-Costa B, Howell T, Bloomer S, Gamble G, Driscoll A, Hyun K, <b>Hammett C</b> , Chew D. Expertise and Infrastructure Capacity Impacts Acute Coronary Syndrome Outcomes. 64th Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand, Adelaide Convention Centre, Adelaide, August 2016.
Poster	Etaher A, Chew DP, Redfern J, Cullen L, Lefkovits J, Ellis C, <b>Hammett CJ</b> , Elliott J, Briffa TG, Brieger D, French JK. Cardiac Troponins, type II myocardial infarction and late mortality: A report from the Australian and New Zealand 2012 SNAPSHOT ACS study. European Society of Cardiology (ESC) Congress 2016, Rome, Italy, August 2016.
Poster	<b>Scott AC, McDonald A</b> , Cuskelly L, Best D, Poole, L, Fairhall S, Tele-super-educating our rural colleagues to achieve diagnostic quality exercise stress tests. Cardiac Society of Australia and New Zealand Conference. Adelaide, August 2016.
Poster	<b>Binny S, Scott AC, McDonald A, Parsonage W, Dahiya A</b> . Comparing representation rates between cardiac imaging modalities for intermediate risk chest pain repeat presenters in a 4 year cohort. Cardiac Society of Australia and New Zealand Conference, Adelaide, August 2016.
Poster	<b>Binny S, Atherton J, McGaughan J</b> , Noonan K, <b>Lancini D</b> , Martin P. Brugada pattern resolution after endocardial ablation in a patient with Brugada ARVC Overlap: A case report in SCN5A variant Brugada syndrome. 9th Annual Asia-Pacific Heart Rhythm Society (APHS) Scientific Session, COEX, Seoul, South Korea, October 2016.
Poster	Lin A, Jeffries C, Camuglia A, Wahi S, Cole C, Mundy J, Garrahy P, <b>Dahiya A</b> . <u>Novel Protocol to Facilitate Low Contrast Dose Computed Tomography Angiography Before Transcatheter Aortic Valve Replacement: Initial Experience</u> . 64th Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand, Adelaide Convention Centre, Adelaide, August 2016.
Poster	<b>Binny S, Dahiya A</b> , Ranjan S, Platts D, Challa P. <u>A Case of Ventricular Septal Defect in a Proximal Right Coronary Artery NSTEMI with Successful Delayed Closure with Amplatzer Occluder Device</u> . 64th Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand, Adelaide Convention Centre, Adelaide, August 2016.
Poster	Carr L, <b>Mohasseb I, Dooris M, Lo A, Prasad S, Dahiya A</b> . <u>Unusual Cause of Cardiomyopathy in 21-Year-Old Female- Anomalous Left Coronary Artery from the Pulmonary Artery (ALCAPA)</u> . 64th Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand, Adelaide Convention Centre, Adelaide, August 2016.

## Other communications and outputs

**Atherton, JJ**: Channel 7 National News (4pm and 6pm slots), July 2016: Saliva testing in heart disease.

**Atherton JJ**: Sydney Morning Herald, October 2016: Heart disease in women. Titled “Cardiologists call for overhaul of male-centric heart guidelines”. Published in Sydney Morning Herald, The Age, WA Today, Brisbane Times, The Canberra Times, and a number of regional and rural areas.

Chen L, Chan YK, Ahamed Y, Ball J, Keates AK, Pouncy J, Løchen ML, Jennings GL, **Atherton JJ**, Stewart S. Hidden Hearts: Cardiovascular risk and disease in Australian women. October 2016. Mary MacKillop Institute for Health Research, Australian Catholic University, Melbourne, Australia.

**Atherton JJ**. Allori: Circulate (Heart failure e-newsletter)- Editorial Advisor: Issue 1 (August 2016), Issue 2 (November 2016).

**Atherton JJ**. Heart Failure Research Review (2nd monthly publication): Issues 32, 34, 36, 38, 40.

## Research Publications / Presentations Summary Table

Research Group / Department	Publications		Presentations National and International	
	Journal Articles	Books and Chapters	Oral	Poster
<b>Cardiology</b>	32	1	36	19



# Department of Clinical Immunology

Two papers were published and Dr Solley presented the prestigious Basten Oration at the Annual scientific meeting of the Australasian Society of Clinical Immunology and Allergy.

## 2016 Research Publications

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal article	Navarro S, Pickering DA, Ferreira IB, Jones L, Ryan S, Troy S, Leech A, Hotez PJ, Zhan B, Laha T, Prentice R, Sparwasser T, Croese J, Engwerda CR, Upham JW, Julia V, Giacomini PR, Loukas A. Hookworm recombinant protein promotes regulatory T cell responses that suppress experimental asthma. <i>Sci Transl Med.</i> 2016;26(8),362.
Journal article	McGain F, Welton R, Solley GO, Winkel KD. First fatalities from tick bite anaphylaxis. <i>J Allergy Clin Immunol Pract.</i> 2016 4(4):769-70.

## 2016 Conference Presentations – Invited Speaker, Oral and Poster

Type (Oral / Poster / Invited)	Presentation information (RBWH staff in bold)
Oral	Solley G. My Career in Allergy. State meeting ASCIA Brisbane April 2016
Oral Invited Speaker	Solley G . Early advances in IgE antibody and eosinophil function. Basten Oration ASCIA ASM Gold Coast September 2016.

## Research Publications / Presentations Summary Table

Research Group / Department	Publications		Presentations National and International	
	Journal Articles	Books and Chapters	Oral	Poster
Clinical Immunology and Allergy	2	0	2	0



## Department of Clinical Pharmacology

The Department of Clinical Pharmacology has a number of research focuses, across multiple professional disciplines, reflecting the multidisciplinary makeup of the department. Research staff work collaboratively with the Department of Pharmacy, in areas related to medication safety, the quality use of medicines and the expanding professional role of pharmacists. Clinical Pharmacology continues to work collaboratively with other hospitals within Metro North Hospital and Health Service (Prince Charles Hospital) and Brisbane (Princess Alexandra Hospital) relating, in particular, to the quality use of medicines.

In addition, the department has begun to focus on the role of individualised feedback, of both nursing and medical staff, related to the safety of prescribing and administration of medicines. Karen Davies, Clinical Nurse Consultant for Medication Safety continues to pursue this work and has recently enrolled in PhD studies. A RBWH foundation grant was utilised in 2016 that expanded upon pilot work that demonstrated remarkable improvements in the accuracy and safety of medical officer prescribing after individualised feedback on prescribing practices. Dr Donovan, Director of Clinical Pharmacology, continues to expand his research interests in the cost-effectiveness of health care and continues to work collaboratively with researchers from within and external to RBWH.

### Supervised Post-graduate Research Students

Name (RBWH staff in bold)	Current Studies (e.g. PhD, Masters etc.)University (duration)	Research Project Title	Supervisors (RBWH staff in bold)
Brooke Myers	PhD, UQ (2014-current)	Role of the Pharmacist on the Medical Post-Take Ward Round	<b>Ian Coombes</b> , Charles Mitchell, <b>Peter Donovan</b> , Jennifer Whitty

### Current Research Group / Department Led Research Activity

Research Group / Department Lead Researchers	Collaborative Researchers	Research Project Title
<b>Donald McLeod (Endocrinology)</b>	<b>Peter Donovan (Clinical Pharmacology)</b> <b>Michael Keogh (Endocrinology)</b>	Treat-to-Target TRAb in Graves' Disease
<b>Phillip Robinson (Rheumatology)</b>	<b>Peter Donovan (Clinical Pharmacology)</b> Nicola Dalbeth (University of Auckland, Auckland Hospital)	A Health Economic Analysis Of The American College Of Rheumatology Guideline To Monitor Serum Urate Every 6 Months After Reaching Target In Gout Treatment
<b>Ian Coombes (Pharmacy)</b>	<b>Peter Donovan (Clinical Pharmacology)</b> <b>Michael Barras (Pharmacy)</b> Charles Mitchel (UQ) Brooke Myers, Christy Noble, Trudy Teasdale, Linda Stockwell (Gold Coast University Hospital)	Improving Intern Medical Officer Prescribing through an Intervention of Self-Assessment and Feedback
<b>Hannah Farquhar (Medicine)</b>	<b>Don McLeod (Endocrinology)</b> <b>Peter Donovan (Clinical Pharmacology)</b> <b>Roger Allison (Cancer Care)</b> <b>Susan Thomas (Cancer Care)</b> <b>Lee Tripcony (Cancer Care)</b>	Validating a response to therapy risk stratification system for Medullary Thyroid Cancer
<b>Peter Donovan (Clinical Pharmacology)</b>	Christine Rowland (Greenslopes Private Hospital) <b>Emma Duncan (Endocrinology)</b> <b>Alison Mudge (Internal Medicine)</b> <b>Paul Tesar (Radiology)</b>	Teriparatide for Pelvic Fracture Healing
<b>Peter Donovan (Clinical Pharmacology)</b>	<b>Donald McLeod (Endocrinology)</b> Louisa Gordon (QIMR Berghofer)	Cost Utility Analysis of the Primary Therapies for Graves' Disease

## Collaborative Research Activity

Collaborative Lead Researchers (RBWH staff in bold)	Your Research Group / Department Researchers	Research Project Title
Brooke Myers (Gold Coast University Hospital)	<b>Ian Coombes (Pharmacy)</b> Charles Mitchel (UQ) <b>Peter Donovan (Clinical Pharmacology)</b> Jennifer Whitty (University of East Anglia)	Role of the Pharmacist on the Medical Post-Take Ward Round

## Research Grants – Awarded

Investigators (RBWH staff in bold)	RBWH Research Groups / Departments	Project Title	Granting Body	Amount in 2016	Total Amount (years)
<b>Ian Coombes, Peter Donovan</b> , Michael Barras, Charles Mitchel, Brooke Myers, Christy Noble, Trudy Teasdale, Linda Stockwell	Pharmacy, <b>Clinical Pharmacology</b>	Improving Intern Medical Officer Prescribing through an Intervention of Self-Assessment and Feedback	RBWH Foundation	\$40,000	\$40,000

## 2016 Research Publications

Type (Oral / Poster / Invited)	Presentation information (RBWH staff in bold)
Journal article	<b>Pattullo CS</b> , Barras M, Tai B, McKean M, <b>Donovan PJ</b> . New Oral Anticoagulants (NOACs) - appropriateness of prescribing in real- world setting: NOACs - appropriateness of prescribing. Intern Med J. 2016 Jul;46(7):812-8.
Journal article	<b>McRae PJ, Walker PJ, Peel NM, Hobson D, Parsonson F, Donovan P, Reade MC, Marquart L, Mudge AM</b> . Frailty and Geriatric Syndromes in Vascular Surgical Ward Patients. Ann Vasc Surg. 2016 Aug;35:9-18. doi: 10.1016/j.avsg.2016.01.033. Epub 2016 May 27.
Journal article	<b>Donovan PJ, McLeod DS</b> , Little R, Gordon L. Cost-Utility Analysis Comparing Radioactive Iodine, Antithyroid Drugs and Total Thyroidectomy for Primary Treatment of Graves' Disease. Eur J Endocrinol. 2016 Dec;175(6):595-603. Epub 2016 Sep 15.
Journal article	Keogh, Samantha, Flynn, Julie, Marsh, Nicole, Mihala, Gabor, <b>Davies, Karen</b> , & Rickard, Claire. Varied flushing frequency and volume to prevent peripheral intravenous catheter failure: A pilot, factorial randomised controlled trial in adult medical-surgical hospital patients. Trials. 2016. 17(1):348. doi: 10.1186/s13063-016-1470-6.





## Department of Endocrinology

The Department of Endocrinology and Diabetes is staffed by 13 medical, two administrative, four allied health professionals, three research nurses, two diabetes nurse educators, one podiatrist, one dietitian and three scientists.

Clinical services provided include in-patient consultative services at RBWH and specialised out-patient clinics at RBWH and Bundaberg Hospital.

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

Clinical research activities 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 as well as assessing testosterone transport and action.

Associate Professor Emma Duncan has a major role within the Department to promote and undertake research. 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.

Dr Don McLeod leads the thyroid service and is pursuing research in aspects of the epidemiology of Thyroid Cancer.

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. This has led to collaboration with the Departments of Obstetric Medicine and Neonatology.

### **On-going Research projects:**

#### **Basic Science**

- Placental handling of thyroid hormone and iodine.
- The role of HDL in thyroid hormone transport.
- Testosterone transport and action in androgen-dependent tissues.

#### **Clinical Trials**

- 12 Studies.

## Research staff

- Assoc. Prof. Michael d’Emden PhD, FRACP Director Endocrinology clinical trials, chronic disease, thyroid hormone action, testosterone transport.
- Assoc. Prof. Emma Duncan PhD, FRACP Senior Staff Specialist genetics of endocrinology, clinical bone disease.
- Dr Don McLeod, Staff Endocrinologist; thyroid disease.
- 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, testosterone transport.
- 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.

## Project Officer chronic disease projects

- Sharon Chambers RN Project Officer chronic disease projects.

## 2016 Research Papers

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal	Syndia Lazarus, Hsu-Wen Tseng, Felicity Lawrence, Mia Woodruff, Emma Letitia Duncan, Allison Robyn Pettit. "Characterisation of murine carpal bone development prompts re-evaluation of pathological osteolysis as the cause of human carpal-tarsal osteolysis syndromes". Accepted, Am J Path, May 2017.
Journal	Katherine English, Warrick J Inder, Zara Weedon, Jane Sorbello, Anthony W Russell, Emma L Duncan, Ross Cuneo. "Prospective evaluation of a day 6 overnight metyrapone test with dynamic assessment of hypothalamic-pituitary-adrenal axis function after pituitary surgery." Accepted, Clin Endocrinol, March, 2017.
Journal	Aidan Flynn, Trisha Dwight, Diana Benn, Sidhartha Deb, Andrew J Colebatch, Stephen Fox, Jessica Harris, Emma L Duncan, Bruce Robinson, Annette Hogg, Jason Ellul, Henry To, Cuong Duong, Julie A Miller, Christopher Yates, Paul James, Alison Trainer, Anthony J Gill, Roderick Clifton-Bligh, Rodney J Hicks, Richard W Tothill. "Cousins not twins: intra and inter-tumoral heterogeneity in the context of syndromic neuroendocrine tumors." Accepted, J Path, February 2017.
Journal	McInerney-Leo AM, Wheeler L, Marshall MS, Anderson LK, Zankl A, Brown MA, Leo PJ, Wicking C, Duncan EL. "Homozygous variant in C21ORF2 in a case of Jeune syndrome with severe thoracic involvement: extending the phenotypic spectrum." Accepted, Am J Human Genet Part A, February 2017.
Journal	Philip C. Robinson, Paul J. Leo, Jennifer J. Pointon, Jessica Harris, Katie Cremin, Linda A. Bradbury, Australian Osteoporosis Genetics Consortium, Wellcome Trust Case Control Consortium, Simon Stebbings, Andrew A. Harrison, David M. Evans, Emma L. Duncan, B. Paul Wordsworth, Matthew A. Brown 2016 Exomewide study of ankylosing spondylitis demonstrates additional shared genetic background with inflammatory bowel disease". Genomic Medicine, <b>1</b> 16008
Journal	Jimena Barraza-García, Carlos I. Rivera-Pedroza,, Alfonso Hisado-Oliva, Alberta Belinchón, Lucía Senthordi, Emma L Duncan, Graeme R Clark, Angela del Pozo Kristina Ibáñez-Garikano Pablo Prieto-Matas, Valerie Cormier-Daire, Karen E. Heath. "Broadening the spectrum of skeletal dysplasias caused by POP1 mutations". Clin Genet, E-published, 9 January 2017.
Journal	Niu, T., N. Liu, X. Yu, M. Zhao, H. J. Choi, P. J. Leo, M. A. Brown, L. Zhang, Y. F. Pei, H. Shen, H. He, X. Fu, S. Lu, X. D. Chen, L. J. Tan, T. L. Yang, Y. Guo, N. H. Cho, J. Shen, Y. F. Guo, G. C. Nicholson, R. L. Prince, J. A. Eisman, G. Jones, P. N. Sambrook, Q. Tian, X. Z. Zhu, C. J. Papsian, E. L. Duncan, A. G. Uitterlinden, C. S. Shin, S. Xiang and H. W. Deng (2016). "Identification of IDUA and WNT16 Phosphorylation-Related Non-Synonymous Polymorphisms for Bone Mineral Density in Meta-Analyses of Genome-Wide Association Studies." J Bone Miner Res 31(2): 358-368.
Journal	Wade, E. M., P. B. Daniel, Z. A. Jenkins, A. McInerney-Leo, P. Leo, T. Morgan, M. C. Addor, L. C. Ades, D. Bertola, A. Bohring, E. Carter, T. J. Cho, H. C. Duba, E. Fletcher, C. A. Kim, D. Krakow, E. Morava, T. Neuhann, A. Superti-Furga, I. Veenstra-Knol, D. Wieczorek, L. C. Wilson, R. C. Hennekam, A. J. Sutherland-Smith, T. M. Strom, A. O. Wilkie, M. A. Brown, E. L. Duncan, D. M. Markie and S. P. Robertson (2016). "Mutations in MAP3K7 that Alter the Activity of the TAK1 Signaling Complex Cause Frontometaphyseal Dysplasia." Am J Hum Genet <b>99</b> (2): 392-406.
Journal	Cortes, C. R., A. M. McInerney-Leo, I. Vogel, M. C. Rondon Galeano, P. J. Leo, J. E. Harris, L. K. Anderson, P. A. Keith, M. A. Brown, M. Ramsing, E. L. Duncan, A. Zankl and C. Wicking (2016). "Mutations in human C2CD3 cause skeletal dysplasia and provide new insights into phenotypic and cellular consequences of altered C2CD3 function." Sci Rep <b>6</b> : 24083.



Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal	McInerney-Leo, A. M., J. E. Harris, M. Gattas, E. E. Peach, S. Sinnott, T. Dudding-Byth, S. Rajagopalan, C. P. Barnett, L. K. Anderson, L. Wheeler, M. A. Brown, P. J. Leo, C. Wicking and E. L. Duncan (2016). "Fryns Syndrome Associated with Recessive Mutations in PIGN in two Separate Families." <i>Hum Mutat</i> 37(7): 695-702.
Journal	McInerney-Leo, A. M., C. Le Goff, P. J. Leo, T. J. Kenna, P. Keith, J. E. Harris, R. Steer, C. Bole-Feysoy, P. Nitschke, C. Kieley, M. A. Brown, <b>(last 3 equal senior authors)</b> A. Zankl, E. L. Duncan and V. Cormier-Daire (2016). "Mutations in LTBP3 cause acromicric dysplasia and geleophysic dysplasia." <i>J Med Genet</i> 53(7): 457-464.
Journal	Flynn, A., T. Dwight, J. Harris, D. Benn, L. Zhou, A. Hogg, D. Catchpole, P. James, E. L. Duncan, A. Trainer, A. J. Gill, R. Clifton-Bligh, R. J. Hicks and R. W. Tothill (2016). "Pheo-Type: A Diagnostic Gene-expression Assay for the Classification of Pheochromocytoma and Paraganglioma." <i>J Clin Endocrinol Metab</i> 101(3): 1034-1043.
Journal	Philip C. Robinson, Paul J. Leo, Jennifer J. Pointon, Jessica Harris, Katie Cremin, Linda A. Bradbury, Australian Osteoporosis Genetics Consortium, Wellcome Trust Case Control Consortium, Simon Stebbings, Andrew A. Harrison, David M. Evans, Emma L. Duncan, B. Paul Wordsworth, Matthew A. Brown 2016 Exomewide study of ankylosing spondylitis demonstrates additional shared genetic background with inflammatory bowel disease". <i>Genomic Medicine</i> , 1 16008.
Journal	Achong, N., H. D. McIntyre, L. Callaway and E. L. Duncan (2016). "Glycaemic behaviour during breastfeeding in women with Type 1 diabetes." <i>Diabet Med</i> 33(7): 947-955.
Journal	Robinson PC, Leo PJ, Pointon JJ, Harris J, Cremin K, Bradbury LA, Stebbings S, Harrison AA, Evans DM, Duncan EL, Wordsworth BP, Brown MA 2016 The genetic associations of acute anterior uveitis and their overlap with the genetics of ankylosing spondylitis. <i>Genes Immun</i> 17(1):46-51
Journal	Gregson CL, Wheeler L, Hardcastle SA, Appleton LH, Addison KA, Brugmans M, Clark GR, Ward K, Paggiosi M, Stone M, Thomas J, Agarwal R, Poole K, McCloskey E, Fraser WD, Williams E, Bullock AN, Smith GD, Brown MA, Tobias JH, <b>Duncan EL</b> 2016 Mutations in Known Monogenic High Bone Mass Loci Only Explain a Small Proportion of High Bone Mass cases. <i>J Bone Miner Res</i> . 31(3):640-9
Journal	WH Lim and <b>EL Duncan</b> . "Is there a role or target value for nutritional vitamin D in chronic kidney disease (CKD)?" Accepted, January 2017. <i>Nephrology</i> . Proceedings of joint ANZBMS-ANZSN meeting on Chronic Kidney Disease – Mineral Bone Disease
Journal	EL Duncan Editorial "the Known Unknowns...". Accepted, February 2017. <i>Nephrology</i> . Proceedings of joint ANZBMS-ANZSN meeting on Chronic Kidney Disease – Mineral Bone Disease
Journal	Clarke M, Dover T, Duncan EL 2017 New and emerging therapies for osteoporosis <i>Endocrinology Today</i> Feb.
Journal	Douglas Kiel, Emma Duncan, Fernando Rivedeneira. "Human Genome-Wide Association Studies" Primer for the American Society for Bone and Mineral Research (ed. C. Rosen). Accepted, January 2017.
Journal	McLeod DSA. A papillary thyroid cancer with minimal extra-thyroidal extension. Invited chapter: Thyroid Cancer: A Case Based Approach (eds: Cooper DS & Durante C). 2016: 61-72
Journal	Pandeya N, McLeod DSA, Balasubramaniam K, Baade P, Youl P, Bain C, Allison R, Jordan SJ. Increasing thyroid cancer incidence in Queensland, Australia 1982-2008 – true increase or over-diagnosis? <i>Clinical Endocrinology</i> . 2016; 84: 257-64
Journal	Neale RE, Armstrong BK, Baxter C, Duarte Romero B, Ebeling P, English D, Kimlin M, McLeod DSA, O'Connell R, van der Pols J, Venn A, Webb PM, Wockner L, Whiteman DC. The D-Health Trial – a randomized placebo-controlled trial of vitamin D for prevention of cancer and mortality. Methods and cohort description. <i>Contemporary Clinical Trials</i> . 2016; 48: 83-90
Journal	Donovan PJ, McLeod DSA, Little R, Gordon L. Cost-Utility Analysis Comparing Radioactive Iodine, Antithyroid Drugs and Total Thyroidectomy for Primary Treatment of Graves' disease. Methods and cohort description. <i>European Journal of Endocrinology</i> . 2016; 175: 595-603
Journal	Landers K and Richard K (2017) Traversing barriers: how thyroid hormones cross the placental, blood-brain and blood-cerebrospinal fluid barriers. Invited review in <i>Molecular and Cellular Endocrinology</i> <a href="http://dx.doi.org/10.1016/j.mce.2017.01.041">http://dx.doi.org/10.1016/j.mce.2017.01.041</a>
Journal	Dawson PA, Richard K, Perkins A, Zhang Z and Simmons DG (2017) Review: Nutrient sulphate supply from mother to fetus: Placental adaptive responses during human and animal gestation. <i>Placenta</i> . <a href="http://dx.doi.org/10.1016/j.placenta.2017.01.001">http://dx.doi.org/10.1016/j.placenta.2017.01.001</a>
Journal	Richard K, Landers K, Vanderlelie JJ, Hofstee P, Cuffe J, Perkins A (2016) Review: Effects of maternal micronutrient supplementation on placental function. <i>Placenta</i> . <a href="http://dx.doi.org/10.1016/j.placenta.2016.12.022">dx.doi.org/10.1016/j.placenta.2016.12.022</a>
Journal	Li H, Pham T, McWhinney BC, Ungerer JP, Pretorius CJ, Richard DJ, Mortimer RH, d'Emden MC and Richard K (2016) Sex hormone binding globulin modifies testosterone action and metabolism in prostate cancer cells. <i>International Journal of Endocrinology</i> <a href="http://dx.doi.org/10.1155/2016/643758">doi.org/10.1155/2016/643758</a>
Journal	SASH1 mediates sensitivity of breast cancer cells to chloropyramine and is associated with prognosis in breast cancer (2016) Burgess JT, Bolderson E, Saunus JM, Zhang S-D, Reid LE, McNicol AM, Lakhani SR, Cuff K, Richard K, Richard DJ, O'Byrne KJ <i>Oncotarget</i> DOI: 10.18632/oncotarget.12020
Journal	Pham T, Sadowski MC, Li H, Richard DJ, d'Emden MC and Richard K (2016) Advances in hormonal therapies for hormone naïve and castration-resistant prostate cancers with or without previous chemotherapy. <i>Experimental Hematology and Oncology</i> 5: 15
Journal	Molehin D, Dekker M and Richard K (2016) Prenatal exposures to multiple thyroid hormone disruptors: effects on glucose and lipid metabolism. <i>The Journal of Thyroid Research</i> .

## Department of Gastroenterology

Colorectal cancer is the second most common cause of cancer death in Australia. It can be prevented by removal of precursor polyps at colonoscopy but colonoscopy is invasive and expensive so must be targeted effectively. In addition colonoscopy sometimes fails to protect against cancer. Our research group, led by Professor Leggett is making significant contributions to knowledge about the biology of colorectal polyps thus guiding their management.

We have identified that some types of serrated polyps have high malignant potential and account for 20% of all colorectal cancers. This has resulted in a world-wide change in colonoscopy practice with these lesions now targeted for identification and removal. Some patients with serrated polyposis still need colectomy to control their disease and we are now working on development of chemoprevention. This research is conducted as part of successful collaboration between RBWH, Pathology Queensland, Envoy Specialist Pathologists and QIMR Berghofer. The importance of our research is reflected in invitations to lecture at major national and international scientific meetings.

The aims of the liver research group are to identify patients at risk of progression to end stage cirrhosis and hepatocellular cancer and to intervene to prevent this progression. Chronic Hepatitis C is a major public health problem affecting approximately 1.5% of Australians. In 2016 new medications to cure Hepatitis C became available and we have introduced new models of care to deliver these medications efficiently. We are studying the outcomes of therapy and presented interim results at the Symposium winning the best clinical science poster.

Dr Skoien continues to operate a research programme in the field of clinical hepatology, new models of care in chronic liver disease and translational medicine. In 2016, further work was completed on discovering a novel biomarker in hepatocellular carcinoma (the sixth most common cancer and second leading cause of cancer death worldwide). This research has focused on the roles of microRNA in the development and detection of liver cancer and work on a panel of microRNAs that could be used to diagnose hepatocellular carcinoma at an earlier stage is ongoing. The Hepatoma and Compensated Cirrhosis Follow-up (HACC-FOL) programme developed by Dr Skoien has now been adopted as standard of care at the RBWH and is being actively explored as a new patient surveillance model in other centres. Finally, strong collaborative links with QIMR-Berghofer and other hospitals/institutions have been consolidated to maximise research capacity in the field of hepatology on the RBWH campus.

Inflammatory Bowel Diseases are continuing to increase in incidence across the Asia-Pacific. On average, 17 Australians will be diagnosed with Crohn's disease or ulcerative colitis every day of the year. Our GI research group, led by A/Professor Radford-Smith has contributed to the development of genetic risk scores for stratifying IBD patients, and combining these with biomarkers to improve diagnostic accuracy. The group is also developing strategies to optimize the use of colonoscopy services by the development of risk assessment tools for primary and secondary healthcare providers.

The Endoscopy research group is working on optimising the surveillance and management of inherited GI cancer syndromes, including studies on novel compounds (in collaboration with CSIRO) on the natural history of Familial Adenomatous Polyposis.

The group is also performing clinical research into diagnostic and therapeutic small bowel endoscopy including leading a multi-centre international trial on the effect of bowel preparation before video capsule endoscopy.

Collaboration with CSIRO is ongoing in the field of reconstructing virtual 3-D models of colons, in an automated fashion calculated from data from the standard 2-dimensional colonoscopy video images.

Endoscopy outcomes research is also a focus including collaboration in a multicentre ANZ audit into the adenoma detection rate as a quality indicator in colonoscopy.

Dr Walsh is leading the departmental experience in the use of endoscopy in bariatric patients and has one of the largest experiences in Australia.

Dr Devereaux has an increasing international reputation and regularly performs live cases internationally. He is the clinical lead in pancreatology.

Dr Huang has recently returned from the United States and is continuing to develop endoscopic methods of measuring portal hypertension.

## Supervised Post-graduate Research Students

Name (RBWH staff in bold)	Current Studies (e.g. PhD, Masters etc.)University (duration)	Research Project Title	Supervisors (RBWH staff in bold)
Dr Yoon-Kyo An	MPhil student	Endoscopy in IBD: Evaluation of implementing endoscopic assessment of mucosal healing in IBD and its safety in clinical practice	<b>Dr Mark Appleyard</b>
Dr Cheng Lui	PhD, UQ (2016-2018)	Molecular characterisation of serrated precursors in colorectal carcinoma	A/Prof Vicki Whitehall, <b>Prof Barbara Leggett</b> , A/Prof Neal Walker, Dr Mark Bettington
Dr Jennifer Borowsky	MPhil, UQ (2016-2018)	Morphological and molecular characterisation of colorectal adenomas and carcinomas	A/Prof Vicki Whitehall, <b>Prof Barbara Leggett</b> , A/Prof Neal Walker, Dr Mark Bettington, Dr Ian Brown
Anna Weis	PhD, The University of Queensland (2015-2017)	New non-invasive methods to detect progression of liver disease and identify patients at highest risk of cirrhosis-related mortality	<b>Dr Richard Skoien</b> , Grant Ramm
<b>Dr Des Patrick</b>	MPhil UQ (2015–2017), submitted	Effect of pre-admission immunosuppressive therapy and regional transfer versus metropolitan hospital presentation on colectomy rates in severe ulcerative colitis	<b>Dr G Radford-Smith, Dr M Howlett</b>
<b>Dr James Irwin</b>	MPhil UQ (2013-2016) - awarded	Longitudinal predictors of poor outcome in Crohn's disease	<b>Dr G Radford-Smith</b>
Dr Zubin Grover	PhD UQ (2011-2016)	Exclusive enteral nutrition and mucosal healing in newly diagnosed children with Crohn's disease	<b>Dr Peter Lewindon, Dr G Radford-Smith</b>

## Research Positions: Coordinators, Fellow, Adjunct and Honorary Positions

Name	Type of Fellowship (Conjoint fellow, Adjunct, Honorary)	Research Program	University Affiliation (years)
<b>Dr Ana Braithwaite</b>	Endoscopy	Endoscopy	N/A
<b>Dr Richard Skoien</b>	Senior Lecturer	School of Medicine	UQ (2012-current)
<b>Dr Richard Skoien</b>	Visiting Scientist	Hepatic Fibrosis Laboratory	QIMR-B (2013-current)
<b>Dr Des Patrick</b>	Conjoint Fellow	Inflammatory Bowel Diseases	UQ (2015-2017)
<b>Dr Richard Cheng</b>	Conjoint Fellow	Inflammatory Bowel Diseases	UQ (2015-2017)

## Current Research Group / Department Led Research Activity

Research Group / Department Lead Researchers	Collaborative Researchers (RBWH staff in bold)	Research Project Title
<b>Dr Mark Appleyard</b>	<b>Dr Jason Hwang, Dr Florian Grimpen</b>	Does bowel preparation alter the diagnostic yield in capsule endoscopy?
<b>Dr Benedict Devereaux</b>	<b>Dr Estella Johns</b>	Asia Pacific SpyGlass Cholangioscopy Registry
<b>Dr Patrick Walsh</b>	<b>Dr Joshua Satchwell</b>	Endoscopic Suturing for Gastrojejunal Outlet Dilatation as a Treatment for Weight Regain After Roux-en-Y Gastric Bypass
<b>Prof Barbara Leggett</b>	Vicki Whitehall (QIMR-B)	The serrated pathway of colorectal carcinogenesis
<b>Dr Richard Skoien</b>	Anna Weis (QIMR-B), Grant Ramm (QIMR-B)	Serum markers in atypical liver lesions (SMALL) study
<b>Dr Richard Skoien</b>	Anna Weis and Grant Ramm (QIMR-B), Olivia Cullen and Karen Beckman (Gastroenterology and Hepatology)	Establishment of a clinical hepatology database and serum bank to study factors associated with chronic liver disease

Research Group / Department Lead Researchers	Collaborative Researchers (RBWH staff in bold)	Research Project Title
<b>Dr Graham Radford-Smith</b>	Members of the ANZ IBD Consortium (Grant Montgomery, Jane Andrews, Ian Lawrance, Richard Geary, Susie Connor et al)	Multiple studies in IBD
<b>Dr Graham Radford-Smith</b>	Simon Keely	Hypoxia and the intestinal immune system
<b>Dr Graham Radford-Smith</b>	Lisa Simms, <b>Dr Mark Appleyard</b>	Optimizing Gastrointestinal (GI) cancer screening in Queensland: the application of clinical, genetic and faecal biomarkers to improve the early detection of GI cancers

## Collaborative Research Activity

Collaborative Lead Researchers (RBWH staff in bold)	Your Research Group / Department Researchers	Research Project Title
Finlay Mcrae (Melbourne)/ CSIRO	<b>Dr Florian Grimpén, Dr Mark Appleyard</b>	AUSFAP study - The effects of butyrylated high amylose maize starch on polyposis in familial adenomatous polyposis patients
Armin MA, Chetty G, De Visser H, Dumas C, Salvado O. (CSIRO)	<b>Dr Florian Grimpén</b>	Automated visibility map of the internal colon surface from colonoscopy video
Gregor Brown (The Alfred Hospital, Melbourne)	<b>Dr Florian Grimpén, Dr Mark Appleyard, Dr Lauren White</b>	Using Adenoma Detection as a Quality indicator in colonoscopy: a multicentre ANZ Audit
<b>Amy Legg</b>	<b>Dr Florian Grimpén, Dr Peter Donovan</b>	PPI usage in RBWH inpatients – Indications and Appropriateness
Alan Cripps	<b>Dr Benedict Devereaux</b>	Mechanisms of mucosal immune regulation in obesity
Martin Delatycki (Austin Health) and Sim Yee Ong (Mi-iron Team)	<b>Dr Richard Skoien</b>	The relationship between serum ferritin and markers of liver fibrosis in a haemochromatosis cohort
Greg Anderson (QIMR-B)	<b>Dr Graham Radford-Smith</b>	A novel nanoparticulate iron supplement and its effect on the gastrointestinal tract.
<b>Dr John Croese</b>	<b>Dr Graham Radford-Smith</b>	Hookworm therapy for Coeliac Disease: A randomised, double blind, placebo-controlled clinical trial

## Research Awards and Achievements

Recipient	Award	Event
<b>Prof Barbara Leggett</b>	Highly Commended award for innovation and creativity – research originality	Metro North 2016 Research Excellence Awards
<b>Dr Alicia Braund</b>	Best Clinical Sciences Poster	RBWH Research Symposium 2016
<b>Dr Richard Skoien, Grant Ramm, Anna Weis</b>	Department of Gastroenterology and Hepatology	Developing a novel blood test to improve the early diagnosis of liver cancer
<b>Dr Richard Cheng</b>	Young Investigator Prize 2016	GE Society of Queensland Annual Meeting 2016

## Research Grants – Awarded

Investigators (RBWH staff in bold)	RBWH Research Groups / Departments	Project Title	Granting Body	Amount in 2016	Total Amount (years)
Finlay Mcrae, <b>Dr Mark Appleyard,</b> <b>Dr Florian Grimpén</b> et al	Department of Gastroenterology and Hepatology	The effects of butyrylated high amylose maize starch on polyposis in familial adenomatous polyposis patients	Cancer Council	\$70,000	\$200,000 (2014-17)
<b>Prof Barbara Leggett,</b> Vicki Whitehall	Department of Gastroenterology and Hepatology	Identifying molecular drivers of colorectal tumorigenesis	RBWH Research Advisory Committee	\$40,000	\$40,000 (2016)
Vicki Whitehall, <b>Prof Barbara Leggett,</b> Pamela Pollack, Mark Bettington, Jason Lee	Department of Gastroenterology and Hepatology	Sessile serrated adenoma prevention in a preclinical study	Cancer Council Queensland	\$100,000	\$200,000 (2016-2017)
Vicki Whitehall, <b>Prof Barbara Leggett,</b> Mark Bettington	Department of Gastroenterology and Hepatology	Wnt and MAPK signalling in the determination of colorectal neoplasia pathway	NHMRC	\$127,815	\$383,445 (2014-2016)
<b>Dr Graham Radford-Smith</b>	Dept of Gastroenterology and Hepatology	A Diagnostic Algorithm for Inflammatory Bowel Disease'	RBWH Research Advisory Committee	\$40,000	\$40,000 (2016)

## 2016 Research Publications

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal article	Li J, Woods SL, Healey S, Beesley J, Chen X, Lee JS, Sivakumaran H, Wayte N, Nones K, Waterfall JJ, Pearson J, Patch AM, Senz J, Ferreira MA, Kaurah P, Mackenzie R, Heravi-Moussavi A, Hansford S, Lannagan TR, Spurdle AB, Simpson PT, da Silva L, Lakhani SR, <b>Clouston AD</b> , Bettington M, <b>Grimpen F</b> , Busuttill RA, Di Costanzo N, Boussioutas A, Jeanjean M, Chong G, Fabre A, Olschwang S, Faulkner GJ, Bellos E, Coin L, Rioux K, Bathe OF, Wen X, Martin HC, Neklason DW, Davis SR, Walker RL, Calzone KA, Avital I, Heller T, Koh C, Pineda M, Rudloff U, Quezado M, Pichurin PN, Hulick PJ, Weissman SM, Newlin A, Rubinstein WS, Sampson JE, Hamman K, Goldgar D, Poplawski N, Phillips K, Schofield L, Armstrong J, Kiraly-Borri C, Suthers GK, Huntsman DG, Foulkes WD, Carneiro F, Lindor NM, Edwards SL, French JD, Waddell N, Meltzer PS, Worthley DL, Schrader KA, Chenevix-Trench G. Am J Hum Genet. Point Mutations in Exon 1B of APC Reveal Gastric Adenocarcinoma and Proximal Polyposis of the Stomach as a Familial Adenomatous Polyposis Variant. 2016 May 5;98(5):830-42
Journal article	Armin MA, Chetty G, De Visser H, Dumas C, <b>Grimpen F</b> , Salvado O. Automated visibility map of the internal colon surface from colonoscopy video. Int J Comput Assist Radiol Surg. 2016 Sep;11(9):1599-610
Journal article	<u>Aranda-Hernández J1, Hwang J1, Kandel G1.</u> Seeing better--Evidence based recommendations on optimizing colonoscopy adenoma detection rate <u>World J Gastroenterol.</u> 2016 Feb 7;22(5):1767-78
Journal article	Samarasena JB, <b>Huang JY</b> , Chin M, et al. Altered anatomy ERCP with spiral overtube-assisted stent placement. Gastrointest Endosc 2016 84 (4):738
Journal article	<b>Huang JY</b> , Samarasena JB, Tsujino T, et al. EUS-guided portal pressure gradient measurement with a novel 25-gauge needle device versus the standard transjugular approach: a comparison animal study. Gastrointest Endosc 2016 (2):358-362.
Journal article	Bettington ML, Walker NI, Rosty C, Brown IS, Clouston AD, McKeone DM, Pearson S-A, Klein K, <b>Leggett BA</b> , Whitehall VLJ. Serrated tubulovillous adenoma of the large intestine. Histopathology 2016; 68:578-587
Journal article	Bond CE, McKeone DM, Bettington ML, Pearson S, Kalimutho M, Dumenil T, Wockner L, Burge M, Leggett BA, Whitehall VLJ. RNF43 and ZNRF3 are commonly altered in serrated pathway colorectal tumorigenesis. Oncotarget 2016; 7:70589-70600
Journal article	Dore GJ, Conway B, Luo Y, Janczewska E, Knysz B, Liu Y, Streinu-Cercel A, Caruntu FA, Curescu M, <b>Skoien R</b> , Ghesquiere W, Mazur W, Soza A, Fuster F, Greenbloom S, Motoc A, Arama V, Shaw D, Tornai I, Sasadeusz J, Dalgard O, Sullivan D, Liu X, Kapoor M, Campbell A, Podsadecki T. Efficacy and safety of ombitasvir/paritaprevir/r and dasabuvir compared to IFN-containing regimens in genotype 1 HCV patients: The MALACHITE-I/II trials. J Hepatol. 2016 Jan;64(1):19-28.
Journal article	Baird AC, Mallon D, <b>Radford-Smith G</b> , Boyer J, Piche T, Prescott SL, et al. Dysregulation of innate immunity in ulcerative colitis patients who fail anti-tumor necrosis factor therapy. World journal of gastroenterology. 2016;22(41):9104-16.
Journal article	Chen JH, Andrews JM, Kariyawasam V, Moran N, Gounder P, Collins G, Walsh AJ, Connor S, Lee TW, Koh CE, Chang J, Paramsothy S, Tattersall S, Lemberg DA, <b>Radford-Smith G</b> , et al. Review article: acute severe ulcerative colitis - evidence-based consensus statements. Alimentary pharmacology & therapeutics. 2016;44(2):127-44.



Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal article	Cleynen I, Boucher G, Jostins L, Schumm LP, Zeissig S, Ahmad T, Parkes M, Vermeire S, Rioux JD, Mansfield J, Silverberg MS, <b>Radford-Smith G</b> , McGovern DP, Barrett JC, Lees CW. Inherited determinants of Crohn's disease and ulcerative colitis phenotypes: a genetic association study. <i>Lancet (London, England)</i> . 2016;387(10014):156-67.
Journal article	Ghaly S, Murray K, Baird A, Martin K, Prosser R, Mill J, Simms LA, Hart PH, <b>Radford-Smith G</b> , Bampton PA, Lawrance IC. High Vitamin D-Binding Protein Concentration, Low Albumin, and Mode of Remission Predict Relapse in Crohn's Disease. <i>Inflammatory bowel diseases</i> . 2016;22(10):2456-64.
Journal article	Hamilton AL, Kamm MA, De Cruz P, Wright EK, Selvaraj F, Princen F, Macrae FA, Leong RW, Kronborg I, <b>Radford-Smith G</b> , Selby W, Bell SJ, Brown SJ, Connell WR. SEROLOGIC ANTIBODIES IN RELATION TO OUTCOME IN POST-OPERATIVE CROHN'S DISEASE. <i>Journal of gastroenterology and hepatology</i> . 2016.
Journal article	Heap GA, So K, Weedon M, Edney N, Bewshea C, Singh A, Parkes M, Phillips R, Pollok R, <b>Radford-Smith G</b> , Sebastian S, Sen S, Shirazi T, Silverberg M, Solomon L, Sturniolo GC, Thomas M, Tremelling M, Tsianos EV, Watts D, Weaver S, Weersma RK, Wesley E, Holden A, Ahmad T. Clinical Features and HLA Association of 5-Aminosalicylate (5-ASA)-induced Nephrotoxicity in Inflammatory Bowel Disease. <i>Journal of Crohn's &amp; Colitis</i> . 2016;10(2):149-58.
Journal article	<b>Hume GE</b> , Doecke JD, Huang N, Fowler EV, Brown IS, Simms LA, Radford-Smith GL. Altered Expression of Angiotensinogen and Mediators of Angiogenesis in Ileal Crohn's Disease. <i>Journal of gastrointestinal and liver diseases: JGLD</i> . 2016;25(1):39-48.
Journal article	Julsgaard M, Christensen LA, Gibson PR, Geary RB, Fallingborg J, Hvas CL, Sparrow MP, Walsh A, Connor SJ, <b>Radford-Smith G</b> , Lawrance IC, Andrews JM, Ellard K, Bell SJ. Concentrations of Adalimumab and Infliximab in Mothers and Newborns, and Effects on Infection. <i>Gastroenterology</i> . 2016;151(1):110-9.
Journal article	Li D, Achkar JP, Haritunians T, Jacobs JP, Hui KY, D'Amato M, Brand S, <b>Radford-Smith G</b> , et al. A Pleiotropic Missense Variant in SLC39A8 Is Associated With Crohn's Disease and Human Gut Microbiome Composition. <i>Gastroenterology</i> . 2016;151(4):724-32.
Online Book	Handbook of Clinical Pancreatology. First Edition Nov 2016, ERGO, available on Apple App Store Editor: <b>A/Prof Benedict Devereaux</b>
Online Book chapter	<b>Devereaux BM</b> . Pancreatic cancer: Diagnosis and staging, in Handbook of Clinical Pancreatology. Editor Benedict Devereaux. Ergo 2016

## 2016 Conference Presentations – Invited Speaker, Oral and Poster

Type (Oral / Poster / Invited)	Presentation information (RBWH staff in bold)
Invited Lecture	<b>Grimpen F</b> . Preparation and Prokinetics in Capsule Endoscopy, and Standardised reporting in Capsule Endoscopy, at the Capsule NETI course, Gold Coast University Hospital, October 2016
Invited Lecture	<b>Walsh P</b> . Endoscopic overstitch for weight regain after bariatric surgery and closing fistulae. SUGSS / ANGOSA meeting on bariatric surgery in Sydney, September 2016
Invited Lecture	<b>Walsh P</b> . Endoscopic and medical options – their current state" and "Overstitch and luminal plication" at OSSANZ Bariatric Surgery Masterclass in Sydney, October 2016
Invited Lecture	<b>Appleyard M</b> . Capsule Endoscopy and Endoscopy in the Coagulopathic Patient. NZ Gastroenterology Week, Hamilton, New Zealand. November 2016
Invited Lecture	<b>Appleyard M</b> . Colonoscopy Performance Indicators: what should we be measuring? Australian Gastroenterology Week, Adelaide, October 2016
Invited Lecture	<b>Appleyard M</b> . NSAID enteropathy. Australian Gastroenterology Week, Adelaide, October 2016
Invited Lecture	<b>Appleyard M</b> . First National Capsule Endoscopy Satellite Symposium in association with NZ Society of Gastroenterology Annual Scientific Meeting, New Zealand Gastroenterology Week, Wellington, November 2016
Invited Lecture	Appleyard M. <b>AGEA Video Forum (Endoscopy Stream presentations) Chair Australian Gastroenterology Week, Adelaide, October 2016</b>
Invited Lecture	Appleyard M. <b>Capsule Endoscopy for Small Bowel Crohn's Disease: First Advisory Board Meeting Sydney, November 2016</b>
Invited Lecture	<b>Devereaux B</b> . EUS-guided pancreatico-biliary drainage. EUS-TAP Symposium. Bangkok, Thailand, 2016
Invited Lecture	<b>Devereaux B</b> . EUS in GI investigation: An update. Gastroenterology Nurses College of Australia (GENCA) Annual Meeting. Adelaide 2016
Invited Lecture	<b>Devereaux B</b> . Stenting for pancreatic duct disruption. Australian Gastroenterology Week. Adelaide, 2016
Invited Lecture	<b>Devereaux B</b> . EUS+/-FNA for pancreatic cystic lesions. Taiwan Digestive Diseases Week 2016. Taipei, Taiwan

Type (Oral / Poster / Invited)	Presentation information (RBWH staff in bold)
Invited Lecture	<b>Devereaux B.</b> Intra-ductal imaging: cholangioscopy and pancreatoscopy. Sunshine Coast Gut Club 2016. Sunshine Coast, 2016
Invited Lecture	<b>Devereaux B.</b> Intra-ductal imaging: cholangioscopy and pancreatoscopy. Gold Coast Gut Club 2016. Gold Coast, 2016
Invited Lecture	<b>Devereaux B.</b> SpyGlass DS. Boston Scientific SpyGlass Evening Symposium. Digestive Diseases Week, San Diego, USA 2016
Invited Lecture	<b>Leggett B.</b> Serrated lesions: what every gastroenterologist should know. Digestive Diseases Week, USA 2016
Invited Lecture	<b>Leggett B.</b> The Serrated Pathway of Colorectal Tumorigenesis, American Association of Cancer Research Single Topic Conference: Colorectal Cancer: From Initiation to Outcomes. USA, 2016
Invited Lecture	<b>Leggett B.</b> Serrated lesions – what they mean for practice. Australian Gastroenterology Week Adelaide, 2016
Invited Lecture	Whitehall V, Colorectal Cancer Genomics. Brisbane Cancer Conference 2016
Invited Lecture	Whitehall V, Serrated Colorectal Neoplasia—from Models to Medicine, Olivia Newton John Cancer Centre Melbourne 2016
Invited Lecture	Whitehall V, The Bench Today—the Bedside Tomorrow?, HOTT Oncology Symposium, Sydney 2016
Invited Lecture	Bond C, Molecular Genetics of Colorectal Cancer, Brisbane Cancer Conference 2016
Invited Lecture	<b>Radford-Smith G.</b> Australian Gastroenterology Week. Adelaide, 2016.
Invited Lecture	<b>Radford-Smith G.</b> Australian Society of Medical Research. 2016 Annual Scientific Conference.
Invited Lecture	<b>Radford-Smith G.</b> Dunedin Gut Club. Dunedin, New Zealand, 2016.
Invited Lecture	<b>Radford-Smith G.</b> New Zealand Inflammatory Bowel Diseases Symposium. 2016.
Oral	Dumas C, Coles T, de Visser H, Cao C, <b>Grimpen F.</b> Haptic Feedback Tuning in Colonoscopy Simulation. International Conference on Systems, Man, and Cybernetics. Budapest, Hungary. May 2016
Oral	Whitehall V, Borowsky J, Bond C, Bettington M, Pearson S, Kalimutho M, Liu J, Dumenil T, McKeone D, Jamieson S, Fernando W, Fennell L, Clouston A, Rosty C, Brown I, Walker N, <b>Leggett B.</b> Wnt Pathway Activation in Serrated Neoplasia of the Colorectum. American Association of Cancer Research Single Topic Conference: Colorectal Cancer: From Initiation to Outcomes, USA 2016
Oral	Kawamata F, Patch A, Bond C, Nones C, McKeone D, Pearson S, Liu C, Fennell L, Dumenil T, Jamieson S, Bettington M, Taketomi A, <b>Leggett B,</b> Waddell N, Whitehall V. Single Nucleotide Polymorphism Redefine Mutation and Expression Profiles of Matched Primary and Metastatic Colorectal Cancer to Investigate Clonal Tumour Changes RBWH Research Symposium, 2016
Oral	Fennell L, Balachandra S, McKeone D, Kawamata F, Bond C, Burge M, <b>Leggett B,</b> Whitehall V. Somatic RNF43 Mutation in Lynch Syndrome Colorectal Cancer, RBWH Research Symposium, 2016
Poster	<b>Satchwell J;</b> Saxena P; Skinner C; <b>Hopkins G; and Walsh P.</b> Endoscopic Suturing for Gastrojejunal Outlet Dilatation as a Treatment for Weight Regain After Roux-en-Y Gastric Bypass – An Australian Case Series. Australian Gastroenterology Week, Adelaide, October 2016
Poster	Kasem K, Nandakumar L, <b>Appleyard M,</b> Singh M. Granular cell tumour–Adenocarcinoma collision tumour of the oesophagus: A case report. Pathology. 2016 Feb 1;48:S132.
Poster	<b>Rowland J, Gan C, Appleyard M,</b> Vandeleur A, <b>Hodgson R,</b> Croese J, <b>Rahman T, Leggett B.</b> The risk of advanced colorectal neoplasia in Australasian populations with sessile serrated adenomas. Journal of Gastroenterology and Hepatology. 2016 Oct 1;31:162-3
Poster	West A, Ding Y, Lin L, Croese J, <b>Hodgson R, Appleyard M, Howlett M,</b> Franz R, Hughes A, Ishwariah H, Shaw I. Service and quality improvement–colorectal cancer, socio-economic disadvantage and improving patient outcomes. Journal of Gastroenterology and Hepatology. 2016 Oct 1;31:62.
Poster	<b>Patrick D,</b> Ballard E, O'Rourke P, Hanigan K, Simms L, Irwin J, <b>Cheng R, Clark DA, Appleyard M, Howlett M, Radford-Smith GL.</b> Colectomy rates in regional transfer versus metropolitan patients with severe ulcerative colitis. Journal of Gastroenterology and Hepatology. 2016 Oct 1;31:144-.
Poster	<b>Patrick D,</b> Ballard E, O'Rourke P, Hanigan K, Simms L, <b>Irwin J, Howlett M, Appleyard M, Radford-Smith GL, Cheng RK.</b> Sa1924 Colectomy Free Survival in Patients With Acute Severe Ulcerative Colitis (ASUC): Analysis of Outcomes Based on Presentation to a Regional Hospital Versus a Metropolitan Hospital. Gastroenterology. 2016 Apr 1;150(4):S405.
Poster	<b>An YK,</b> Wong J, You IS, Mortimore M, Hewett DG, <b>Appleyard MN,</b> Begun J. The incidence of 30-day adverse events after colonoscopy in an IBD population. InJournal of Gastroenterology and Hepatology 2016 (Vol. 31, pp. 154-155).
Poster	<b>Patrick D,</b> Ballard E, O'Rourke P, Hanigan K, Simms L, <b>Cheng RK, Irwin J, Howlett M, Appleyard M, Radford-Smith GL.</b> Sa1923 Oral Corticosteroid Use at Time of Admission Is Associated With an Increased Late Colectomy Rate in Patients With Acute Severe Ulcerative Colitis (ASUC). Gastroenterology. 2016 Apr 1;150(4):S404-5.
Poster	Ding Y, Lin L, West A, Moattar H, Alghamry A, Croese J, <b>Appleyard M, Hodgson R,</b> Vandeleur A, Thomas J, Gupta R. Service and quality improvement–are we 'hit and miss' with gastric and oesophageal cancer detection?. Journal of Gastroenterology and Hepatology. 2016 Oct 1;31:54-

Type (Oral / Poster / Invited)	Presentation information (RBWH staff in bold)
Poster	Whitehall V, Fernando W, McKeone D, Bettington M, Pearson S, Bond C, <b>Leggett B</b> . Modelling Conventional and Serrated Colorectal Tumourigenesis by Altering Wnt and MAPK signalling pathways American Association of Cancer Research Annual Meeting, USA 2016
Poster	Liu C, Bond C, Kawamata F, McKeone D, Jamieson S, Fernando W, <b>Leggett B</b> , Whitehall V. Murine Model of Serrated Neoplasia Pathway RBWH Research Symposium 2016
Poster	Borowsky J, Bond C, Bettington M, Pearson S, Liu C, Dumenil T, McKeone D, Jamieson S, Fernando W, Fennell L, Clouston A, Rosty C, Brown I, Walker N, <b>Leggett B</b> , Whitehall V. APC Mutation as a Mechanism of WNT Pathway Activation in Serrated Colorectal Polyps and Cancers, RBWH Research Symposium 2016
Poster	Gazzola A, Lim R, Strasser S, Nicoll A, Mitchell J, Siow W, Khoo T, Hamarneh Z, Weltman M, Janko N, Tse E, Mishra G, Cheng EH, Levy M, Cheng W, Sood S, <b>Skoien R</b> , Zekry A, George J, Macquillan G, Wigg A, Stuart K, Sievert W, McCaughan G, Roberts SK, on behalf of the ALA CRN: Mycophenolate in autoimmune hepatitis not responsive or intolerant to standard therapy: the TAPESTRY study. Australian Gastroenterology Week, October 2016 and The Liver Meeting (AASLD), November 2016.
Poster	<b>Braund A, Legg A, Cullen O, Beckman K, Mina J, Fenech M, Leggett B, Skoien R</b> : New direct-acting antiviral (DAA) regimens improve clinical capacity and efficiency in the treatment of chronic hepatitis C. RBWH Healthcare Symposium, November 2016.
Poster	Gane EJ, Sola R, Cohen E, Roberts SK, George J, <b>Skoien R</b> , Riordan S, Mobashery N, Abunimeh M, Cohen DE, Agarwal K: RUBY-II: Efficacy and Safety of a Ribavirin-free Ombitasvir/Paritaprevir/Ritonavir ± Dasabuvir Regimen in Patients with Severe Renal Impairment or End-Stage Renal Disease and HCV Genotypes 1a or 4 Infection. The Liver Meeting (AASLD), November 2016.
Poster	Samarasena J, Lee RH, Reataza M, <b>Huang JY</b> , et al. Confocal Laser-Induced Endomicroscopy After Radiofrequency Ablation of Intestinal Metaplasia at the Gastro-Esophageal Junction (CLEAR IMAGE Study). <i>Gastrointest Endosc</i> 2016;83:AB563
Poster	Samarasena JB, <b>Huang JY</b> , Tsujino T, et al. Endoscopic Ultrasound Guided Portal Pressure Gradient Measurement With a Simple Novel Device – First Human Pilot Study. <i>Gastrointest Endosc</i> 2016;83:AB169-170
Poster	Samarasena JB, <b>Huang JY</b> , Tsujino T, et al. Endoscopic Ultrasound Guided Portal Pressure Gradient Measurement with a Simple Novel Device. <i>Gastrointest Endosc</i> 2016;83:AB186
Poster	Tsujino T, <b>Huang JY</b> , Samarasena J, et al. Safety and Feasibility of Combination EUS-Guided Portal Pressure Gradient Measurement and Liver Biopsy: The Realization of Endo-Hepatology. <i>Gastrointest Endosc</i> 2016;83:AB415-416
Poster	Tsujino T, <b>Huang JY</b> , Samarasena J, et al. EUS-Guided Needle-Based Confocal Laser Endomicroscopy in the Diagnosis of Cystic Pancreatic Neuroendocrine Tumor: Surgical Pathologic Correlation in Six Cases. <i>Gastrointest Endosc</i> 2016;83:AB353.
Poster	Tsujino T, Samarasena J, <b>Huang JY</b> , et al. EUS-Guided Through-the-Needle Dual Imaging With Confocal Laser-Induced Endomicroscopy (nCLE) and Cystoscopy in Pancreatic Cysts: Correlation With Gold-Standard Surgical Pathology. <i>Gastrointest Endosc</i> 2016;83:AB336.

## Research Publications / Presentations Summary Table

Research Group / Department	Publications		Presentations National and International	
	Journal Articles	Books and Chapters	Oral	Poster
Gastroenterology and Hepatology	17	2	31	21



# Genetic Health Queensland



**Assoc Prof Julie McGaughan**  
Director  
Genetic Health Queensland

Genetic Health Queensland is a state-wide service which provides clinical genetics services for all age groups in the state of Queensland. GHQ contributes to education and grand rounds both at RBWH and LCCH. All clinical staff undertakes a number of presentations locally to other health professional groups and to non-government organisations. There is a research assistant employed by the ICCon familial cancer project.

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. This is particularly seen in the area of rare diseases in children.

In 2016, GHQ became part of the Australian Genomic Health Alliance after Australian Genomics was awarded a \$25 million grant from the National Health and Medical Research Council's (NHMRC) Targeted Call for Research into Preparing Australia for the Genomics Revolution in Healthcare. Over the course of this five-year grant, the aim is to make Australia a global leader in genomic medicine by providing the best evidence and policy advice to the Government, state agencies, hospitals and health providers. AGHA brings together more than 50 partner organisations committed to integrating genomic medicine into healthcare across Australia.

National collaboration looking at sudden unexpected death in young people led to co-authorship of a paper in the NEJM. Cardiac genetics is an active area of research and publications.

Renal genetics, is also a growing and developing field with contributions to the AGHA as a flagship (led from Queensland) and research and publications.

The Inherited Cancer Connect (ICCon) partnership is a national collaboration established in 2013 to formally link Australian Familial Cancer Centres, familial cancer researchers and the Cancer Council NSW, enabling a coordinated approach to improve the outcomes of people with inherited cancer syndromes. ICCon is currently supported (2013-2017) by Cancer Council NSW through the CCNSW STREP funding program.

It has four research priorities (RP): RP1 Develop a national infrastructure to connect the inherited cancer community; RP2 Develop a national approach to identify people at risk of heritable cancers; RP3 Improve the accuracy of cancer risk predictions in inherited cancer syndromes; and RP4 Improve cancer risk management of people with hereditary cancer syndromes.

Given the current huge growth and development in genomics in all areas of clinical medicine, the involvement of GHQ in a range of research activities will inevitably increase significantly in the near future.

## Research Positions: Coordinators, Fellow, Adjunct and Honorary Positions

Name	Type of Fellowship	Research Program	University Affiliation (years)
Julie McGaughran			Associate Professor UQ
Julie McGaughran			Adjunct Associate Professor, Griffith
Rachel Austin	Research assistant (HP)	ICCon Co-ordinator	

## Current Research Group / Department Led Research Activity

Research Group / Department Lead Researchers	Collaborative Researchers	Research Project Title
Julie McGaughran	Australian Genomic Health Alliance	Australian Genomic Health Alliance
Julie McGaughran	Program 1 lead Queensland	
Julie McGaughran	ICCon NSW cancer council	

## Collaborative Research Activity

Collaborative Lead Researchers (RBWH staff in bold)	Your Research Group / Department Researchers	Research Project Title
Andrew Mallett (Renal, RBWH)	Australian Genomic Health Alliance	NGS and iPSC Applications in Genetic and Inheritable Kidney Disease
Andrew Mallett (Renal, RBWH)	Chirag Patel (SMO), Julie McGaughran	Applying Functional Genomics to Kidney Disease
Andrew Mallett (Renal, RBWH)	Chirag Patel (SMO), Julie McGaughran	Functional Genomics in Inherited Kidney Disease

## Research Awards and Achievements

Recipient	Award	Event
Pauline McGrath	Allied Health Poster Presentation Award Winner	RBWH Symposium

## Research Grants – Awarded

Investigators (RBWH staff in bold)	RBWH Research Groups / Departments	Project Title	Granting Body	Amount in 2016	Total Amount (years)
Julie McGaughran (CI)	GHQ	AGHA	NHMRC (Nationally \$5 million annually for 5 years)		5



## 2016 Research Publications

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal	Andrew Mallett, <b>Lindsay Fowles, Julie McGaughran</b> , Helen Healy, <b>Chirag Patel</b> . A Multidisciplinary Renal Genetics Clinic improves patient diagnosis: An effective clinical model for mainstreaming genetic medicine in Australia. <b>MJA</b> Volume 204, Issue 02 Feb 2016
Journal	Paulina Bartuzi, Daniel D. Billadeau, Robert Favier, Shunxing Rong, Daphne Dekker, Hille Fieten, Alina Fedoseienko, Melinde Wijers, Johannes H. Levels, Nicolette Huijckman, Niels Kloosterhuis, Henk van der Molen, Gemma Burfau, Albert K. Groen, Jan-Albert Kuivenhoven, <b>Julie McGaughran</b> , Jay Horton, Ezra Burstein, Marten H. Hofker, Bart van de Sluis. CCC- and WASH-mediated endosomal sorting of the low-density lipoprotein receptor (LDLR) is required for normal clearance of circulating low-density lipoproteins (LDL). <b>Nature Communications</b> 2016 Mar 11; Vol. 7, pp. 10961
Journal	Bagnall RD, Weintraub RG, Ingles J, Duflou J, Yeates Y, Lam L, Davis A, Thompson T, Connell V, Wallace J, Naylor C, Crawford J, Love DR, Hallam L, White J, Lawrence C, Lynch M, Morgan N, James P, du Sart D, Puranik R, Langlois N, Vohra J, Winship I, Atherton J, <b>McGaughran J</b> , Skinner JR, Semsarian C. A Prospective, Population-Based Study of Sudden Cardiac Death in the Young. <b>New England Journal of Medicine</b> 2016. Jun 23; Vol. 374 (25), pp. 2441-52
Journal	Burns C; Ingles J; Davis AM; Connell V; Gray B; <b>Hunt L; McGaughran J</b> ; Semsarian C. Clinical and genetic features of Australian families with long QT syndrome: A registry-based study. <b>J Arrhythm</b> 2016 Dec; Vol. 32 (6), pp. 456-461;
Journal	Joanna Crawford, Neil Bower, Benjamin Hogan, Ryan J Taft, Michael Gabbett, <b>Julie McGaughran</b> and Cas Simons. Expanding the Genotypic Spectrum of CCBE1 Mutations in Hennekam Syndrome. <b>Am J Med Genet</b> Vol. 170 (10), pp. 2694-7
Journal	Wallis MJ, Kelly AL, Peters GB, St Heaps L, Nandini A, <b>McGaughran JM</b> . A balanced paternal interchromosomal reciprocal insertion between 5q12.1q13.2 and 20p12.3p12.1 resulting in separate genetic conditions in two siblings. <b>Am J Med Genet A</b> . 2016 Jul;170 (7):1930-3.
Journal	Burns C, <b>McGaughran J</b> , Davis A, Semsarian C, Ingles J. Factors influencing uptake of familial long QT syndrome genetic testing. <b>Am J Med Genet A</b> . 2016 Feb;170 A(2):418-25.
Journal	Chan S, Mallett AJ, <b>Patel C</b> , Francis RS, Johnson DW, Mudge DW, Isbel NM. Recurrent atypical haemolytic uraemic syndrome post kidney transplant due to a CD46 mutation in the setting of SMARCAL1-mediated inherited kidney disease. <b>Nephrology (Carlton)</b> . 2017. Suppl 1:11-14.
Journal	Deciphering Developmental Disorders Study (including <b>Patel C</b> ). Prevalence and architecture of de novo mutations in developmental disorders. <b>Nature</b> . 2017. 542(7642):433-438.
Journal	La Piana R, Cayami FK, Tran LT, Guerrero K, van Spaendonk R, Öunap K, Pajusalu S, Haack T, Wassmer E, Timmann D, Mierzewska H, Poll-Thé BT, <b>Patel C</b> , Cox H, Atik T, Onay H, Ozkinay F, Vanderver A, van der Knaap MS, Wolf NI, Bernard G. Diffuse hypomyelination is not obligate for POLR3-related disorders. <b>Neurology</b> . 2016. 86:1622-1626.

## 2016 Conference Presentations – Invited Speaker, Oral and Poster

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Oral	<b>McGaughran J</b> Successes and Challenges in the cardiac genetics clinic International Congress of Human genetics, Kyoto, Japan April
Oral	<b>McGaughran J</b> Update on Clinical Genetics RACP Congress Adelaide May Invited
Oral	<b>McGaughran J</b> HGSA EVOLVE RACP Congress Adelaide May Invited
Oral	<b>McGaughran J</b> Successes and Challenges in the cardiac genetics clinic Human Genetics Society of Australasia ASM Hobart August
Oral	<b>MarFan H</b> The QLD experience of BRCA mainstreaming COSA satellite symposium 2016
Poster	<b>McGaughran J</b> , J Crawford, Simons C A child with compound heterozygous Desmoplakin mutations: A new phenotype? Manchester Dysmorphology Meeting, UK, November 2016
Poster	<b>Berkman J, Wakeling J, McGaughran J</b> . A collaborative family approach for identifying BRCA1/2 mutations in individuals without a living cancer affected family member. RBWH Healthcare Symposium 2016; Human Genetics Society of Australasia, Hobart 2016
Poster	<b>Berkman J, Atherton J, McGaughran J</b> Family and psychological factors effecting adaptation to a diagnosis of an inherited cardiac condition. RBWH Healthcare Symposium 2016; International Clinical Cardiovascular Genetics Conference, Brisbane 2016

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Poster	<b>Lindsay Fowles, Lauren Hunt, Rachel D Susman.</b> Reaching a diagnosis of Lynch syndrome: A case highlighting the importance of effective liaison between the genetics and pathology services. Human Genetics Society of Australasia: 40 <sup>th</sup> Annual Scientific Meeting, Hobart, August 2016
Poster	<b>Higgins M, Susman R, Wakeling JL, Mar Fan H.</b> Is consecutive mismatch repair (MMR) gene germline mutation testing associated with an increased detection of MMR gene mutations in the diagnosis of Lynch Syndrome in patients with colorectal cancer? 40 <sup>th</sup> Annual Scientific Meeting, Hobart, August 2016 and RBWH Symposium September 2016
Poster	<b>Znaczko A, Sivasuthan G, Wakeling JL, Susman R, Mar Fan H.</b> Genetic testing of mismatch repair genes (MMR) in patients with endometrial cancer 40 <sup>th</sup> Annual Scientific Meeting, Hobart, August 2016 and RBWH Symposium September 2016

## 10) Other communications and outputs

Julie McGaughran; Member of panel discussion regarding genomics at RBWH symposium.

## 11) Research Publications / Presentations Summary Table

Research Group / Department	Publications		Presentations National and International	
	Journal Articles	Books and Chapters	Oral	Poster
	10	0	12	12



## Genetics of Epilepsy

Research in the Reutens laboratory focuses on neurological disorders, particularly epilepsy, and the development of novel imaging methods to better understand, diagnose and manage them. 2016 was an outstanding year for the Reutens group with a number of high profile papers published, several new grants, including a new ARC Discovery Project grant, novel IP submitted in patent applications and several new RHD students and post-doctoral fellows joining the group.

### Supervised Post-graduate Research Students

Name (RBWH staff in bold)	Current Studies (e.g. PhD, Masters etc.) University (duration)	Research Project Title	Supervisors (RBWH staff in bold)
Javier Urriola Yaksic	PhD, UQ (2015-2018)	Imaging biomarkers in epilepsy	<b>David Reutens</b> , Lars Marstaller, Hana Burianova
Shaez Abdulla	PhD, UQ (2016-2019)	Resonance Imaging Data	<b>David Reutens</b> , Viktor Vegh
Pietro Caradonna	PhD, UQ (2015-2018)	Quantitative methods for PET-MRI	<b>David Reutens</b> , Viktor Vegh
Shrinath Kadamangudi	MPhil, UQ (2016-2018)	Characterising MRI signal compartments using frequency shift signature	<b>David Reutens</b> , Viktor Vegh
A.S. M. Zahid Kausar	PhD, UQ (2015-2018)	Radio frequency coil development for hybrid PET-MRI	<b>David Reutens</b> , Viktor Vegh
Shahrazad Moeiniyan Bagheri	PhD, UQ (2015-2018)	A novel magnetic resonance technique to characterise white matter microstructure in the brain	<b>David Reutens</b> , Viktor Vegh
Ruben Pellicer Guridi	PhD, UQ (2014-2017)	Research and development of ultra-low field magnetic resonance imaging/nuclear magnetic resonance (MRI/NMR) instrumentation methods.	<b>David Reutens</b> , Michael Vogel
Zheng Qiao	PhD, UQ (2015-2018)	Development of novel PET tracers for the early detection of brain tumours	<b>David Reutens</b> , Rajiv Bhalla
Surabhi Sood	PhD, UQ (2015-2018)	Mapping of magnetic susceptibility of the human brain from MRI acquired data	<b>David Reutens</b> , Viktor Vegh, Markus Barth
Jiaxin Du	Postdoctoral Fellow	Research and development of methods for neuronal current magnetic resonance imaging (ncMRI)	<b>David Reutens</b>
Reza Bonyadi	Postdoctoral Fellow	Science of Learning Imaging projects	<b>David Reutens</b>
Maryam Ziaei	Postdoctoral Fellow	Science of Learning Imaging analysis	<b>David Reutens</b>
Min Chen	Postdoctoral Fellow	Rodent models of epilepsy using molecular biological techniques using in vivo MRI & EEG	<b>David Reutens</b>
Qiang Yu	Postdoctoral Fellow	Modelling and analysis of anomalous diffusion in magnetic resonance imaging	<b>David Reutens</b>

### Research Grants - Awarded

Investigators (RBWH staff in bold)	RBWH Research Groups / Departments	Project Title	Granting Body	Amount in 2016	Total Amount (years)
<b>DC Reutens</b> and 26 other CIs	Neurology	The Science of Learning Research Centre	ARC	\$4,000,000	\$16,000,000 (2103-2016)
<b>D Reutens</b> , S Meikle, T Venkatachalam, I Turner, J Benlloch, A Boyd, V Vegh, A Gonzalez, R Bhalla, Z Yang	Neurology	Advancing hybrid imaging with magnetic resonance imaging and positron emission tomography (MRI-PET)	ARC	\$100,000	\$300,000 (2013-2016)
<b>DC Reutens</b> , O Speck, V Vegh.	Neurology	A novel magnetic resonance imaging (MRI) technique to characterise white matter microstructure in the brain	ARC	\$115,000	\$365,000 (2014-2016)

Investigators (RBWH staff in bold)	RBWH Research Groups / Departments	Project Title	Granting Body	Amount in 2016	Total Amount (years)
<b>D Reutens</b>	Neurology	Towards detection of neuronal currents with magnetic resonance imaging	ARC	\$150,000	\$452,600 (2015-2017)
V Vegh, <b>DC Reutens</b> , M Gray, C Riney, S Malone.	Neurology	Novel MRI approaches to map focal cortical dysplasia in focal epilepsy	NHMRC	\$155,000	\$465,489 (2016-2018)
<b>DC Reutens</b> (with Centenary Institute Sydney)	Neurology	ACRF Tumor Metabolism Laboratory	ACRF	\$2,500,000	\$2,500,000 (2016)

## 2016 Research Publications

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal Article	Tieng Q, Kharatishvili I, Chen M, <b>Reutens D</b> . Mouse EEG spike detection based on the adapted continuous wavelet transform. <i>J Neural Eng</i> 2016; 13(2)026018. [Epub ahead of print]
Journal Article	Sepehrband F, Alexander DC, Kurniawan ND, <b>Reutens DC</b> , Yang Z. Towards Higher Sensitivity And Stability Of Axon Diameter Estimation With Diffusion-Weighted Magnetic Resonance Imaging. <i>NMR Biomed</i> 2016 doi: 10.1002/nbm.3462. [Epub ahead of print].
Journal Article	Schönberger M, <b>Reutens D</b> , Beare R, O'Sullivan R, Rajaratnam S, Ponsford J. Brain lesion correlates of fatigue in individuals with traumatic brain injury. <i>Neuropsychol Rehabil.</i> 2016 Mar 9:1-15.
Journal Article	Venkatachalam TK, Bernhardt PV, Noble CJ, Fletcher N, Pierens GK, Thurecht KJ, <b>Reutens DC</b> . Synthesis, characterisation and biological activities of semicarbazones and their copper complexes. <i>J Inorg Biochem</i> 2016; 162:295-308.
Journal Article	Venkatachalam TK, Pierens GK, Bernhardt PV, Stimson DHR, Bhalla R, Lambert L, <b>Reutens DC</b> . Heteronuclear NMR Spectroscopic investigations of gallium complexes of substituted thiosemicarbazones including X-ray crystal structure, a new halogen exchange strategy and 18F radiolabeling. <i>Aust J Chem</i> 2016; 69: 1033-1048.
Journal Article	Marstaller L, Burianova H, <b>Reutens D</b> . Dynamic competition between large-scale functional networks differentiates fear conditioning and extinction in humans. <i>Neuroimage</i> 2016;134:314-319.
Journal Article	Vogel MW, Giorno A, Vegh V, Guridi RP, <b>Reutens DC</b> . Rotatable small permanent magnet array for ultra-low field nuclear magnetic resonance instrumentation: A concept study. <i>PLoS One</i> Jun 6;11(6):e0157040. doi: 10.1371/journal.pone.0157040.
Journal Article	Sood S, Urriola J, <b>Reutens D</b> , O'Brien K, Bollmann S, Barth M, Vegh V. Echo time dependent quantitative susceptibility mapping contains information on tissue properties. <i>Magn Reson Med.</i> 2016 May 25. doi: 10.1002/mrm.26281. [Epub ahead of print]
Journal Article	Sepehrband F, Alexander DC, Clark KA, Kurniawan ND, Yang Z, <b>Reutens DC</b> . Parametric probability distribution functions for axon diameters of corpus callosum. <i>Front Neuroanat</i> 2016 May 26;10:59. doi: 10.3389/fnana.2016.00059. eCollection 2016.
Journal Article	Pierens G, Venkatachalam TK, <b>Reutens DC</b> . Investigation of 2- and 3-bond carbon-hydrogen Coupling Constants in Cinnamic Acid based Compounds. <i>Magn Reson Chem</i> 2016 Jun 29. doi: 10.1002/mrc.4469
Journal Article	Williams R, <b>Reutens D</b> , Hocking J. Influence of BOLD contributions to diffusion fMRI activation of the visual cortex. <i>Front Neurosci</i> 2016 Jun 28;10:279. doi: 10.3389/fnins.2016.00279.
Journal Article	Stimson DH, Pringle AJ, Maillet D, King AR, Nevin ST, Venkatachalam TK, <b>Reutens DC</b> , Bhalla R. Management of radioactive waste gases from PET radiopharmaceutical synthesis using cost effective capture systems integrated with a cyclotron safety system. <i>J Radiol Prot.</i> 2016 Jul 7;36(3):504-517.
Journal Article	Marstaller L, Burianova H, <b>Reutens DC</b> . Individual differences in structural and functional connectivity predict speed of emotion discrimination. <i>Cortex</i> 2016;85:65-74.
Journal Article	Yu Q, <b>Reutens D</b> , O'Brien K, Vegh V. Tissue microstructure features derived from anomalous diffusion measurements in magnetic resonance imaging. <i>Hum Brain Mapp</i> 2017; 38(2):1068-1081.
Journal Article	Marstaller L, Burianova H, <b>Reutens DC</b> . Adaptive contextualization: A new role for the default mode network in affective learning. <i>Hum Brain Mapp</i> 2017; 38(2):1082-1091.
Journal Article	Chen M, Arumugam TV, Leanage G, Tieng QM, Yadav A, Ullmann JFP, She DT, Truong V, Ruitenber MJ, <b>Reutens DC</b> . Disease-modifying effect of intravenous immunoglobulin in an experimental model of epilepsy. <i>Sci Rep</i> 2017; 7:40528. doi: 10.1038/srep40528.
Journal Article	Bollman S, Robinson SD, O'Brien K, Vegh V, Janke A, Marstaller L, <b>Reutens DC</b> , Barth M. The challenge of bias free coil combination for quantitative susceptibility mapping at ultra-high field. <i>Magn Reson Med (In Press)</i>
Journal Article	Wu T, Grandjean J, Bosshard SC, Rudin M, <b>Reutens D</b> , Jiang T. Altered regional connectivity reflecting effects of different anaesthesia protocols in the mouse brain. <i>NeuroImage (In Press)</i>

## Infectious Diseases

The Infectious Diseases Unit incorporates inpatients, the facility wide consultation service, the Hospital in the Home and Outpatient Parenteral Therapy services, the Infection Monitoring and Prevention Service (IMPS), the Workplace Screening and Vaccination Service, Sexual Health and HIV Service, Antimicrobial Stewardship Service, and the Vascular Access Support Service. All components of the service are involved in research in one form or another with linkages to University of Queensland Clinical Research Centre, QIMR, Queensland University of Technology to name a few.

The aim of the McCarthy Group is to develop new drugs, vaccines and diagnostics for malaria, especially through the conduct of human malaria challenge studies in healthy volunteers. As well, materials from these studies are being used to improve understanding of the immune response to malaria. There is a pressing need to develop new antimalarial drugs to combat drug-resistant malaria and to achieve the ambitious goal of malaria elimination. Funding highlights include an A\$19M NHMRC Program Grant. Relevant collaborations within MNHS include with Chemical Pathology Queensland Health for measuring drug levels in clinical trials, the Herston Imaging Research Facility (HIRF) to undertake in vivo imaging in malaria, and with Queensland Children's Medical Research Institute (QCMRI) to undertake molecular analysis to quantify parasite DNA in the blood of study subjects.

David Paterson's research group studies antibiotic resistance, approaching this from the viewpoints of clinical trials and molecular epidemiology of Gram negative bacteria. The major achievement this year has been conduct of the largest randomised controlled trial yet performed in the world on antibiotic resistant Gram negative bacteria (the "MERINO trial"). This RCT has been centred at RBWH.

The other clinicians and team members undertake research focused on the patient population we serve including studies of epidemiology (Dr Woods and IMPS), and case studies of particular clinical problems (Drs Allworth, Hajkowicz, Redmond).

### Supervised Post-graduate Research Students

Name (RBWH staff in bold)	Current Studies (e.g. PhD, Masters etc.)University (duration)	Research Project Title	Supervisors (RBWH staff in bold)
Sumi Britton	PhD UQ (2011-16)	Rapid Diagnostic Tests for malaria	<b>James McCarthy</b> , Qin Cheng, Colin Sutherland
Paul Griffin	PhD UQ (2013-)	Human challenge studies in malaria	<b>James McCarthy</b> , David Looke
<b>Paul Chapman</b>	MPhil UQ (2015-)	An attenuated hookworm vaccine	<b>James McCarthy</b> , Alex Loukas
<b>John Woodford</b>	MPhil UQ (2016-)	Microcirculatory disturbance in malaria	<b>James McCarthy</b> , Nick Anstey
Hosam Zowawi	PhD (UQ) – awarded 2016	Epidemiology of multiresistant Gram negative bacteria in the Arabian Gulf	<b>David Paterson</b>
Vikram Vaska	PhD (UQ) – awarded 2016	MRSA in children in Queensland	<b>David Paterson</b>
<b>Kate McCarthy</b>	PhD (UQ) (2013-2017)	Pseudomonas aeruginosa bloodstream infections	<b>David Paterson</b>

### Research Positions: Coordinators, Fellow, Adjunct and Honorary Positions

Name	Type of Fellowship	Research Program	University Affiliation (years)
James McCarthy	NHMRC Practitioner Fellow	QIMR Berghofer	QIMR Berghofer (2002-current)
David Paterson	Professor; Practitioner Fellow	Antibiotic Resistant Gram negative bacteria	UQ (2007-current)



## Current Research Group / Department Led Research Activity

Research Group / Department Lead Researchers	Collaborative Researchers	Research Project Title
<b>James McCarthy</b>	Medicines for Malaria/multiple Pharma/Bill and Melinda Gates Foundation	Human Challenge Studies in malaria
<b>James McCarthy</b>	Stephen Trowell (CSIRO)	Breath Volatiles in malaria
<b>James McCarthy</b>	<b>Paul Thomas</b> (Nuclear Medicine)	In vivo imaging in malaria
<b>James McCarthy</b>	Robert Sauerwein (Netherlands)	Transmission studies in malaria
<b>James McCarthy</b>	Michael Good, Don McManus, Istvan Toth, Nicholas Anstey, Denise Doolan, Christian Engwerda, Alexander Loukas, Richard Price	Tropical diseases: Translating discoveries into better health
James McCarthy	Gonzalo Domingo (PATH)	Biomarkers for Malaria Elimination
<b>David Paterson</b>	<b>Patrick Harris</b> (Path QLD) <b>Kate McCarthy</b> (RBWH and Path QLD)	Antibiotic resistant Gram negative bacilli

## Research Grants – Awarded

Investigators (RBWH staff in bold)	RBWH Research Groups / Departments	Project Title	Granting Body	Amount in 2016	Total Amount (years)
<b>James McCarthy</b>	Infectious Diseases		Australian Institute of Infectious Diseases Research Center	\$50,000	2016
<b>James McCarthy</b>	Infectious Diseases	Controlled Human Malaria Infection Transmission (CHMI Transmission)	PATH-MVI	\$265,453	2016
<b>James McCarthy</b>	Infectious Diseases	Biomarkers for Malaria Elimination" "BIOME" Plasmodium Vivax ("Pv")	PATH	58,584.89	2016
<b>James McCarthy</b>	Infectious Diseases	Plasmodium Falciparum ("Pf") Histidine-Rich Protein 2 ("HRP2") production and decay model to define HRP2 dynamics and Pf detection over time	PATH	115,921.50	2016
<b>James McCarthy</b>	Infectious Diseases	A proof-of-concept study to assess the effect of (+)-SJ000557733 (SJ733) against early Plasmodium falciparum blood stage infection in healthy participants	Medicines for Malaria Venture	\$232,185	2016
<b>James McCarthy</b>	Infectious Diseases	P.falciparum hrp2 sequencing project	Foundation for Innovative New Diagnostics (FIND)	\$95,527	2016
<b>James McCarthy</b>	Infectious Diseases	A single centre, two-part, Phase I study to investigate the safety, tolerability and pharmacokinetic profile of ascending oral doses of MMV390048 and its antimalarial activity against Plasmodium falciparum in healthy adult subjects	Medicines for Malaria Venture	\$112,240	2016
<b>James McCarthy</b>	Infectious Diseases	A Phase Ib experimental study to assess the in vivo safety and response to chloroquine of Plasmodium vivax isolate HMPBS02-Pv in healthy participants with induced blood stage malaria infection	Medicines for Malaria Venture	\$1,033,195	2016
<b>James McCarthy</b>	Infectious Diseases	Grand Challenges – New Interventions for Global Health: Novel Sensor and Biomarkers for Diagnosis of Malaria Using Human Breath	Bill and Melinda Gates Foundation	\$663,631	2016-17

Investigators (RBWH staff in bold)	RBWH Research Groups / Departments	Project Title	Granting Body	Amount in 2016	Total Amount (years)
<b>James McCarthy</b>	Infectious Diseases	Improving Health Outcomes in the Tropical North: A Multidisciplinary Collaboration	NHMRC Northern Australia Tropical Disease Collaborative Research Programme 1131932	\$1,199,583	2016-2020
<b>James McCarthy</b>	Infectious Diseases	Hookworm therapy for Coeliac Disease: A randomised, double blind, placebo-controlled clinical trial	NHMRC Project 1105300	\$144,166	2016-2021
<b>David Paterson</b>	Infectious Diseases	Practitioner Fellowship	NHMRC		

## 2016 Research Publications

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal Article	McNamara JF, Paterson DL, <b>Allworth A</b> , Presneill J, O'Connell P, Henderson RD. Re-activation of varicella zoster virus associated with anterior spinal cord stroke in pregnancy. <i>Infect Dis (Lond)</i> . 2016 Sep;48(9):705-7. doi: 10.1080/23744235.2016.1185535. Epub 2016 May 20.
Journal Article	Chapman B, Slavin M, Marriott D, Halliday C, Kidd S, Arthur I, Bak N, Heath CH, Kennedy K, Morrissey CO, Sorrell TC, van Hal S, Keighley C, Goeman E, Underwood N, <b>Hajkowicz K</b> , Hofmeyr A, Leung M, Macesic N, Botes J, Blyth C, Cooley L, George CR, Kalukottege P, Kesson A, McMullan B, Baird R, Robson J, Korman TM, Pendle S, Weeks K, Liu E, Cheong E, Chen S; Australian and New Zealand Mycoses Interest Group. Changing epidemiology of candidaemia in Australia. <i>J Antimicrob Chemother</i> . 2017 Apr 1;72(4):1270. doi: 10.1093/jac/dkx047.
Journal Article	<b>Rafei N, Hajkowicz K, Redmond A</b> , Taylor C. First report of Zika virus infection in a returned traveller from the Solomon Islands. <i>Med J Aust</i> . 2016 Mar 21;204(5):186-186e1.
Journal Article	Montes de Oca M, Good MF, <b>McCarthy JS</b> , Engwerda CR. The Impact of Established Immunoregulatory Networks on Vaccine Efficacy and the Development of Immunity to Malaria. <i>Journal of immunology (Baltimore, Md. : 1950)</i> . 2016; 197(12):4518-4526. PubMed [journal] PMID: 27913644
Journal Article	Loukas A, Hotez PJ, Diemert D, Yazdanbakhsh M, <b>McCarthy JS</b> , Correa-Oliveira R, Croese J, Bethony JM. Hookworm infection. <i>Nature reviews. Disease primers</i> . 2016; 2:16088. PubMed [journal] PMID: 27929101
Journal Article	Griffin P, Pasay C, Elliott S, Sekuloski S, Sikulu M, Hugo L, Khoury D, Cromer D, Davenport M, Sattabongkot J, Iverson K, Ockenhouse C, <b>McCarthy J</b> . Safety and Reproducibility of a Clinical Trial System Using Induced Blood Stage Plasmodium vivax Infection and Its Potential as a Model to Evaluate Malaria Transmission. <i>PLoS neglected tropical diseases</i> . 2016; 10(12):e0005139. PubMed [journal] PMID:27930652, PMCID: PMC5145139
Journal Article	Burel JG, Apte SH, <b>McCarthy JS</b> , Doolan DL. Plasmodium vivax but Not Plasmodium falciparum Blood-Stage Infection in Humans Is Associated with the Expansion of a CD8+ T Cell Population with Cytotoxic Potential. <i>PLoS neglected tropical diseases</i> . 2016; 10(12):e0005031. PubMed [journal] PMID: 27930660, PMCID:PMC5145136
Journal Article	Batzloff MR, Fane A, Gorton D, Pandey M, Rivera-Hernandez T, Calcutt A, Yeung G, Hartas J, Johnson L, Rush CM, <b>McCarthy J</b> , Ketheesan N, Good MF. Preclinical immunogenicity and safety of a Group A streptococcal M protein-based vaccine candidate. <i>Human vaccines &amp; immunotherapeutics</i> . 2016; 12(12):3089-3096. PubMed [journal] PMID: 27541593, PMCID: PMC5215552
Journal Article	Campbell SJ, Nery SV, D'Este CA, Gray DJ, <b>McCarthy JS</b> , Traub RJ, Andrews RM, Llewellyn S, Vallely AJ, Williams GM, Amaral S, Clements AC. Water, sanitation and hygiene related risk factors for soil-transmitted helminth and Giardia duodenalis infections in rural communities in Timor-Leste. <i>International journal for parasitology</i> . 2016; 46(12):771-779. PubMed [journal] PMID: 27616734
Journal Article	Engelman D, Fuller LC, Solomon AW, <b>McCarthy JS</b> , Hay RJ, Lammie PJ, Steer AC. Opportunities for Integrated Control of Neglected Tropical Diseases That Affect the Skin. <i>Trends in parasitology</i> . 2016; 32(11):843-854. PubMed [journal] PMID: 27638231
Journal Article	Montes de Oca M, Kumar R, Rivera FL, Amante FH, Sheel M, Faleiro RJ, Bunn PT, Best SE, Beattie L, Ng SS, Edwards CL, Boyle GM, Price RN, Anstey NM, Loughland JR, Burel J, Doolan DL, Haque A, <b>McCarthy JS</b> , Engwerda CR. Type I Interferons Regulate Immune Responses in Humans with Blood-Stage Plasmodium falciparum Infection. <i>Cell reports</i> . 2016; 17(2):399-412. NIHMSID: EMS70303 PubMed [journal] PMID: 27705789, PMCID: PMC5082731
Journal Article	<b>McCarthy JS</b> , Ruckle T, Djeriou E, Cantalloube C, Ter-Minassian D, Baker M, O'Rourke P, Griffin P, Marquart L, Hooft van Huijsduijn R, Möhrle JJ. A Phase II pilot trial to evaluate safety and efficacy of ferroquine against early Plasmodium falciparum in an induced blood-stage malaria infection study. <i>Malaria journal</i> . 2016; 15:469. PubMed [journal] PMID: 27624471, PMCID: PMC5022189

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Journal Article	Pasay CJ, Rockett R, Sekuloski S, Griffin P, Marquart L, Peatey C, Wang CY, O'Rourke P, Elliott S, Baker M, Möhrle JJ, <b>McCarthy JS</b> . Piperaquine Monotherapy of Drug-Susceptible Plasmodium falciparum Infection Results in Rapid Clearance of Parasitemia but Is Followed by the Appearance of Gametocytemia. The Journal of infectious diseases. 2016; 214(1):105-13. PubMed [journal] PMID: 27056954, PMCID: PMC4907420
Journal Article	Britton S, Cheng Q, Grigg MJ, William T, Anstey NM, <b>McCarthy JS</b> . A Sensitive, Colorimetric, High-Throughput Loop-Mediated Isothermal Amplification Assay for the Detection of Plasmodium knowlesi. The American journal of tropical medicine and hygiene. 2016; 95(1):120-2. PubMed [journal] PMID: 27162264, PMCID: PMC4944675
Journal Article	Krause A, Dingemans J, Mathis A, Marquart L, Möhrle JJ, <b>McCarthy JS</b> . Pharmacokinetic/pharmacodynamic modelling of the antimalarial effect of Actelion-451840 in an induced blood stage malaria study in healthy subjects. British journal of clinical pharmacology. 2016; 82(2):412-21. PMID: 27062080, PMCID: PMC4972157
Journal Article	Karunaratne DS, Horne-Debets JM, Huang JX, Faleiro R, Leow CY, Amante F, Watkins TS, Miles JJ, Dwyer PJ, Stacey KJ, Yarski M, Poh CM, Lee JS, Cooper MA, Rénia L, Richard D, <b>McCarthy JS</b> , Sharpe AH, Wykes MN. Programmed Death-1 Ligand 2-Mediated Regulation of the PD-L1 to PD-1 Axis Is Essential for Establishing CD4(+) T Cell Immunity. Immunity. 2016; 45(2):333-45. PubMed [journal] PMID: 27533014
Journal Article	Gyawali P, Ahmed W, Sidhu JP, Nery SV, Clements AC, Traub R, <b>McCarthy JS</b> , Llewellyn S, Jagals P, Toze S. Quantitative detection of viable helminth ova from raw wastewater, human feces, and environmental soil samples using novel PMA-qPCR methods. Environmental science and pollution research international. 2016; 23(18):18639-48. PubMed [journal] PMID: 27306209
Journal Article	Aghazadeh M, Harvie MC, Owen HC, Verissimo C, Aland KV, Reid SA, Traub RJ, McMANUS DP, <b>McCarthy JS</b> , Jones MK. Comparative pathogenesis of eosinophilic meningitis caused by Angiostrongylus mackerrasae and Angiostrongylus cantonensis in murine and guinea pig models of human infection. Parasitology. 2016; 143(10):1243-51. PubMed [journal] PMID: 27278827
Journal Article	<b>McCarthy JS</b> , Baker M, O'Rourke P, Marquart L, Griffin P, Hooft van Huijsduijnen R, Möhrle JJ. Efficacy of OZ439 (artefenomel) against early Plasmodium falciparum blood-stage malaria infection in healthy volunteers. The Journal of antimicrobial chemotherapy. 2016; 71(9):2620-7. PubMed [journal] PMID: 27272721, PMCID: PMC4992851
Journal Article	Khoury DS, Cromer D, Möhrle JJ, <b>McCarthy JS</b> , Davenport MP. Defining the Effectiveness of Antimalarial Chemotherapy: Investigation of the Lag in Parasite Clearance Following Drug Administration. The Journal of infectious diseases 2016; 214(5):753-61. PubMed [journal] PMID: 27252475, PMCID: PMC4978373
Journal Article	Stanisic DI, Gerrard J, Fink J, Griffin PM, Liu XQ, Sundac L, Sekuloski S, Rodriguez IB, Pingnet J, Yang Y, Zhou Y, Trenholme KR, Wang CY, Hackett H, Chan JA, Langer C, Hanssen E, Hoffman SL, Beeson JG, <b>McCarthy JS</b> , Good MF. Infectivity of Plasmodium falciparum in Malaria-Naive Individuals Is Related to Knob Expression and Cytoadherence of the Parasite. Infection and immunity. 2016; 84(9):2689-96. PubMed [journal] PMID: 27382019, PMCID: PMC4995910
Journal Article	Burel JG, Apte SH, Groves PL, Klein K, <b>McCarthy JS</b> , Doolan DL. Reduced Plasmodium Parasite Burden Associates with CD38+ CD4+ T Cells Displaying Cytolytic Potential and Impaired IFN- $\gamma$ Production. PLoS pathogens. 2016; 12(9):e1005839. PubMed [journal] PMID: 27662621, PMCID: PMC503501120
Journal Article	Britton S, Cheng Q, Grigg MJ, Poole CB, Pasay C, William T, Fornace K, Anstey NM, Sutherland CJ, Drakeley C, <b>McCarthy JS</b> . Sensitive Detection of Plasmodium vivax Using a High-Throughput, Colourimetric Loop Mediated Isothermal Amplification (HtLAMP) Platform: A Potential Novel Tool for Malaria Elimination. PLoS neglected tropical diseases. 2016; 10(2):e0004443. PubMed [journal] PMID: 26870958, PMCID: PMC4752294
Journal Article	Grigg MJ, William T, Menon J, Dhanaraj P, Barber BE, Wilkes CS, von Seidlein L, Rajahram GS, Pasay C, <b>McCarthy JS</b> , Price RN, Anstey NM, Yeo TW. Artesunate-mefloquine versus chloroquine for treatment of uncomplicated Plasmodium knowlesi malaria in Malaysia (ACT KNOW): an open-label, randomised controlled trial. The Lancet. Infectious diseases. 2016; 16(2):180-8. NIHMSID: EMS67061 PubMed [journal] PMID: 26603174, PMCID: PMC4753673
Journal Article	Britton S, Cheng Q, <b>McCarthy JS</b> . Novel molecular diagnostic tools for malaria elimination: a review of options from the point of view of high-throughput and applicability in resource limited settings. Malaria journal. 2016; 15:88. PubMed [journal] PMID: 26879936, PMCID: PMC4754967
Journal Article	Pilote N, Papiakovou M, Grant JR, Bierwert LA, Llewellyn S, <b>McCarthy JS</b> , Williams SA. Improved PCR-Based Detection of Soil Transmitted Helminth Infections Using a Next-Generation Sequencing Approach to Assay Design. PLoS neglected tropical diseases. 2016; 10(3):e0004578. PubMed [journal] PMID: 27027771, PMCID: PMC4814118
Journal Article	Mounsey KE, Bernigaud C, Chosidow O, <b>McCarthy JS</b> . Prospects for Moxidectin as a New Oral Treatment for Human Scabies. PLoS neglected tropical diseases. 2016; 10(3):e0004389. PubMed [journal] PMID: 26985995, PMCID: PMC4795782
Journal Article	Chalmers BA, Xing H, Houston S, Clark C, Ghassabian S, Kuo A, Cao B, Reitsma A, Murray CE, Stok JE, Boyle GM, Pierce CJ, Littler SW, Winkler DA, Bernhardt PV, Pasay C, De Voss JJ, <b>McCarthy J</b> , Parsons PG, Walter GH, Smith MT, Cooper HM, Nilsson SK, Tsanaktsidis J, Savage GP, Williams CM. Validating Eaton's Hypothesis: Cubane as a Benzene Bioisostere. Angewandte Chemie (International ed. in English). 2016; 55(11):3580-5. PubMed [journal] PMID: 26846616
Journal Article	Loughland JR, Minigo G, Burel J, Tipping PE, Piera KA, Amante FH, Engwerda CR, Good MF, Doolan DL, Anstey NM, <b>McCarthy JS</b> , Woodberry T. Profoundly Reduced CD1c+ Myeloid Dendritic Cell HLA-DR and CD86 Expression and Increased Tumor Necrosis Factor Production in Experimental Human Blood-Stage Malaria Infection. Infection and immunity. 2016; 84(5):1403-12. PubMed [journal] PMID: 26902728, PMCID: PMC4862702

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Journal Article	Campbell SJ, Nery SV, Doi SA, Gray DJ, Soares Magalhães RJ, <b>McCarthy JS</b> , Traub RJ, Andrews RM, Clements AC. Complexities and Perplexities: A Critical Appraisal of the Evidence for Soil-Transmitted Helminth Infection-Related Morbidity. <i>PLoS neglected tropical diseases</i> . 2016; 10(5):e0004566. PubMed [journal] PMID: 27196100, PMCID: PMC4873196
Journal Article	<b>McCarthy JS</b> , Marquart L, Sekuloski S, Trenholme K, Elliott S, Griffin P, Rockett R, O'Rourke P, Sloots T, Angulo-Barturen I, Ferrer S, Jiménez-Díaz MB, Martínez MS, Hooft van Huijsdijnen R, Duparc S, Leroy D, Wells TN, Baker M, Möhrle JJ. Linking Murine and Human <i>Plasmodium falciparum</i> Challenge Models in a Translational Path for Antimalarial Drug Development. <i>Antimicrobial agents and chemotherapy</i> . 2016; 60(6):3669-75. PubMed [journal] PMID: 27044554, PMCID: PMC4879391
Journal Article	Payne RO, Milne KH, Elias SC, Edwards NJ, Douglas AD, Brown RE, Silk SE, Biswas S, Miura K, Roberts R, Rampling TW, Venkatraman N, Hodgson SH, Labbé GM, Halstead FD, Poulton ID, Nugent FL, de Graaf H, Sukhtankar P, Williams NC, Ockenhouse CF, Kathcart AK, Qabar AN, Waters NC, Soisson LA, Birkett AJ, Cooke GS, Faust SN, Woods C, Ivinson K, <b>McCarthy JS</b> , Diggs CL, Vekemans J, Long CA, Hill AV, Lawrie AM, Dutta S, Draper SJ. Demonstration of the Blood-Stage <i>Plasmodium falciparum</i> Controlled Human Malaria Infection Model to Assess Efficacy of the <i>P. falciparum</i> Apical Membrane Antigen 1 Vaccine, FMP2.1/AS01. <i>The Journal of infectious diseases</i> . 2016; 213(11):1743-51. PubMed [journal] PMID: 26908756, PMCID: PMC4857475
Journal Article	Llewellyn S, Inpankaew T, Nery SV, Gray DJ, Verweij JJ, Clements AC, Gomes SJ, Traub R, <b>McCarthy JS</b> . Application of a Multiplex Quantitative PCR to Assess Prevalence and Intensity Of Intestinal Parasite Infections in a Controlled Clinical Trial. <i>PLoS neglected tropical diseases</i> . 2016; 10(1):e0004380. PubMed [journal] PMID: 26820626, PMCID: PMC4731196
Journal Article	Campbell SJ, Nery SV, <b>McCarthy JS</b> , Gray DJ, Soares Magalhães RJ, Clements AC. A Critical Appraisal of Control Strategies for Soil-Transmitted Helminths. <i>Trends in parasitology</i> . 2016; 32(2):97-107. PubMed [journal] PMID: 26795294
Journal Article	Berna AZ, <b>McCarthy JS</b> , Trowell SC. Malaria detection using breath biomarkers. <i>The Medical journal of Australia</i> . 2016; 204(2):50. PubMed [journal] PMID: 26821093
Journal Article	<b>McCarthy KL</b> , Kidd TJ, Paterson DL. The molecular epidemiology of <i>Pseudomonas aeruginosa</i> bloodstream infection isolates in a non-outbreak setting. <i>J Med Microbiol</i> . 2016 Dec 19. doi: 10.1099/jmm.0.000413. [Epub ahead of print]
Journal Article	<b>McCarthy KL</b> , Paterson DL. Community-acquired <i>Pseudomonas aeruginosa</i> bloodstream infection: a classification that should not falsely reassure the clinician. <i>Eur J Clin Microbiol Infect Dis</i> . 2017 Apr;36(4):703-711. doi: 10.1007/s10096-016-2852-0. Epub 2016 Dec 9. PMID: 27942878
Journal Article	Huber CA, Sidjabat HE, Zowawi HM, Kvaskoff D, Reed S, McNamara JF, <b>McCarthy KL</b> , Harris P, Toh B, Wailan AM, Paterson DL. Detection of carbapenemase activity in Enterobacteriaceae using LC-MS/MS in comparison with the neo-rapid CARB kit using direct visual assessment and colorimetry. <i>J Microbiol Methods</i> . 2016 Dec;131:68-72. doi: 10.1016/j.jmimet.2016.10.005. Epub 2016 Oct 11. PubMed PMID:27737785
Journal Article	<b>Rafiei N</b> , Peri AM, Righi E, <b>Harris P</b> , <b>Paterson DL</b> . Central nervous system nocardiosis in Queensland: A report of 20 cases and review of the literature. <i>Medicine (Baltimore)</i> . 2016 Nov;95(46):e5255. Review.
Journal Article	<b>Harris PN</b> , <b>McNamara JF</b> , Lye DC, Davis JS, Bernard L, Cheng AC, Doi Y, Fowler VG Jr, Kaye KS, Leibovici L, <b>Lipman J</b> , Llewellyn MJ, Muñoz-Price S, Paul M, Peleg AY, Rodríguez-Baño J, Rogers BA, Seifert H, Thamlikitkul V, Thwaites G, Tong SY, Turnidge J, Utili R, Webb SA, <b>Paterson DL</b> . Proposed primary endpoints for use in clinical trials that compare treatment options for bloodstream infection in adults: a consensus definition. <i>Clin Microbiol Infect</i> . 2016 Nov 1. pii: S1198-743X(16)30512-2. doi: 10.1016/j.cmi.2016.10.023. [Epub ahead of print]
Journal Article	Trubiano JA, Worth LJ, Urbancic K, Brown TM, <b>Paterson DL</b> ; Australasian Society for Infectious Diseases Clinical Research Network., Lucas M; Australasian Society of Clinical Immunology and Allergy., Phillips E. Return to sender: the need to re-address patient antibiotic allergy labels in Australia and New Zealand. <i>Intern Med J</i> . 2016 Nov;46(11):1311-1317. doi: 10.1111/imj.13221.
Journal Article	Furuya-Kanamori L, Riley TV, <b>Paterson DL</b> , Foster NF, Huber CA, Hong S, Harris-Brown T, Robson J, Clements AC. Comparison of <i>Clostridium difficile</i> Ribotypes Circulating in Australian Hospitals and Communities. <i>J Clin Microbiol</i> . 2016 Dec 28;55(1):216-225. doi: 10.1128/JCM.01779-16. Print 2017 Jan.
Journal Article	Huber CA, Sidjabat HE, Zowawi HM, Kvaskoff D, Reed S, McNamara JF, <b>McCarthy KL</b> , Harris P, Toh B, Wailan AM, <b>Paterson DL</b> . Detection of carbapenemase activity in Enterobacteriaceae using LC-MS/MS in comparison with the neo-rapid CARB kit using direct visual assessment and colorimetry. <i>J Microbiol Methods</i> . 2016 Dec;131:68-72. doi: 10.1016/j.jmimet.2016.10.005. Epub 2016 Oct 11.
Journal Article	Gutiérrez-Gutiérrez B, Salamanca E, de Cueto M, Hsueh PR, Viale P, Paño-Pardo JR, Venditti M, Tumbarello M, Daikos G, Pintado V, Doi Y, Tuon FF, Karaiskos I, Machuca I, Schwaber MJ, Azap ÖK, Souli M, Roilides E, Pournaras S, Akova M, Pérez F, Bermejo J, Oliver A, Almela M, Lowman W, Almirante B, Bonomo RA, Carmeli Y, <b>Paterson DL</b> , Pascual A, Rodríguez-Baño J; Investigators from the REIPI/ESGBIS/INCREMENT Group. A Predictive Model of Mortality in Patients With Bloodstream Infections due to Carbapenemase-Producing Enterobacteriaceae. <i>Mayo Clin Proc</i> . 2016 Oct;91(10):1362-1371. doi: 10.1016/j.mayocp.2016.06.024.
Journal Article	Furuya-Kanamori L, Yakob L, Riley TV, <b>Paterson DL</b> , Baker P, McKenzie SJ, Robson J, Clements AC. Community-Acquired <i>Clostridium difficile</i> Infection, Queensland, Australia. <i>Emerg Infect Dis</i> . 2016 Sep;22(9):1659-61. doi: 10.3201/eid2209.151115.
Journal Article	Sarkar S, Roberts LW, Phan MD, Tan L, Lo AW, Peters KM, <b>Paterson DL</b> , Upton M, Ulett GC, Beatson SA, Totsika M, Schembri MA. Comprehensive analysis of type 1 fimbriae regulation in fimB-null strains from the multidrug resistant <i>Escherichia coli</i> ST131 clone. <i>Mol Microbiol</i> . 2016 Sep;101(6):1069-87. doi: 10.1111/mmi.13442. Epub 2016 Jul 15.

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal Article	Bergen PJ, Bulitta JB, Kirkpatrick CM, Rogers KE, McGregor MJ, Wallis SC, <b>Paterson DL</b> , <b>Lipman J</b> , Roberts JA, Landersdorfer CB. Effect of different renal function on antibacterial effects of piperacillin against <i>Pseudomonas aeruginosa</i> evaluated via the hollow-fibre infection model and mechanism-based modelling. <i>J Antimicrob Chemother.</i> 2016 Sep;71(9):2509-20. doi: 10.1093/jac/dkw153. Epub 2016 May 26.
Journal Article	van Duin D, <b>Paterson DL</b> . Multidrug-Resistant Bacteria in the Community: Trends and Lessons Learned. <i>Infect Dis Clin North Am.</i> 2016 Jun;30(2):377-90. doi: 10.1016/j.idc.2016.02.004.
Journal Article	<b>McNamara JF</b> , <b>Paterson DL</b> , <b>Allworth A</b> , <b>Presneill J</b> , <b>O'Connell P</b> , <b>Henderson RD</b> . Re-activation of varicella zoster virus associated with anterior spinal cord stroke in pregnancy. <i>Infect Dis (Lond).</i> 2016 Sep;48(9):705-7. doi: 10.1080/23744235.2016.1185535. Epub 2016 May 20.
Journal Article	Gutiérrez-Gutiérrez B, Pérez-Galera S, Salamanca E, de Cueto M, Calbo E, Almirante B, Viale P, Oliver A, Pintado V, Gasch O, Martínez-Martínez L, Pitout J, Akova M, Peña C, Molina J, Hernández A, Venditti M, Prim N, Origüen J, Bou G, Tacconelli E, Tumbarello M, Hamprecht A, Giamarellou H, Almela M, Pérez F, Schwaber MJ, Bermejo J, Lowman W, Hsueh PR, Mora-Rillo M, Natera C, Souli M, Bonomo RA, Carmeli Y, <b>Paterson DL</b> , Pascual A, Rodríguez-Baño J. A Multinational, Preregistered Cohort Study of B-Lactam/B-Lactamase Inhibitor Combinations for Treatment of Bloodstream Infections Due to Extended-Spectrum-B-Lactamase-Producing Enterobacteriaceae. <i>Antimicrob Agents Chemother.</i> 2016 Jun 20;60(7):4159-69. doi: 10.1128/AAC.00365-16. Print 2016 Jul.
Journal Article	Wailan AM, Sidjabat HE, Yam WK, Alikhan NF, Petty NK, Sartor AL, Williamson DA, Forde BM, Schembri MA, Beatson SA, <b>Paterson DL</b> , Walsh TR, Partridge SR. Mechanisms Involved in Acquisition of bla <sub>NDM</sub> Genes by IncA/C2 and IncFIY Plasmids. <i>Antimicrob Agents Chemother.</i> 2016 Jun 20;60(7):4082-8. doi: 10.1128/AAC.00368-16. Print 2016 Jul.
Journal Article	Avent ML, Hansen MP, Gilks C, Del Mar C, Halton K, Sidjabat H, Hall L, Dobson A, <b>Paterson DL</b> , van Driel ML. General Practitioner Antimicrobial Stewardship Programme Study (GAPS): protocol for a cluster randomised controlled trial. <i>BMC Fam Pract.</i> 2016 Apr 21;17:48. doi: 10.1186/s12875-016-0446-7.
Journal Article	Tong SY, Nelson J, <b>Paterson DL</b> , Fowler VG Jr, Howden BP, Cheng AC, Chatfield M, <b>Lipman J</b> , Van Hal S, O'Sullivan M, Robinson JO, Yahav D, Lye D, Davis JS; CAMERA2 study group and the Australasian Society for Infectious Diseases Clinical Research Network. CAMERA2 - combination antibiotic therapy for methicillin-resistant <i>Staphylococcus aureus</i> infection: study protocol for a randomised controlled trial. <i>Trials.</i> 2016 Mar 31;17:170. doi: 10.1186/s13063-016-1295-3.
Journal Article	Cheng AC, Collins DA, Elliott B, Ferguson JK, <b>Paterson DL</b> , Thean S, Riley TV. Laboratory-based surveillance of <i>Clostridium difficile</i> circulating in Australia, September - November 2010. <i>Pathology.</i> 2016 Apr;48(3):257-60. doi: 10.1016/j.pathol.2016.02.005. Epub 2016 Mar 2.
Journal Article	Hall L, Farrington A, Mitchell BG, Barnett AG, Halton K, Allen M, Page K, Gardner A, Havers S, Bailey E, Dancer SJ, Riley TV, Gericke CA, Paterson DL, Graves N. Researching effective approaches to cleaning in hospitals: protocol of the REACH study, a multi-site stepped-wedge randomised trial. <i>Implement Sci.</i> 2016 Mar 24;11:44. doi: 10.1186/s13012-016-0406-6.
Journal Article	Furuya-Kanamori L, Doi SA, <b>Paterson DL</b> , Helms SK, Yakob L, McKenzie SJ, Garborg K, Emanuelsson F, Stollman N, Kronman MP, Clark J, Huber CA, Riley TV, Clements AC. Upper Versus Lower Gastrointestinal Delivery for Transplantation of Fecal Microbiota in Recurrent or Refractory <i>Clostridium difficile</i> Infection: A Collaborative Analysis of Individual Patient Data From 14 Studies. <i>J Clin Gastroenterol.</i> 2017 Feb;51(2):145-150. doi: 10.1097/MCG.0000000000000511.
Journal Article	<b>Sinclair HA</b> , <b>Heney C</b> , Sidjabat HE, <b>George NM</b> , Bergh H, Anuj SN, <b>Nimmo GR</b> , <b>Paterson DL</b> . Genotypic and phenotypic identification of <i>Aeromonas</i> species and CphA-mediated carbapenem resistance in Queensland, Australia. <i>Diagn Microbiol Infect Dis.</i> 2016 May;85(1):98-101. doi: 10.1016/j.diagmicrobio.2016.02.005. Epub 2016 Mar 10.
Journal Article	Gutiérrez-Gutiérrez B, Bonomo RA, Carmeli Y, <b>Paterson DL</b> , Almirante B, Martínez-Martínez L, Oliver A, Calbo E, Peña C, Akova M, Pitout J, Origüen J, Pintado V, García-Vázquez E, Gasch O, Hamprecht A, Prim N, Tumbarello M, Bou G, Viale P, Tacconelli E, Almela M, Pérez F, Giamarellou H, Cisneros JM, Schwaber MJ, Venditti M, Lowman W, Bermejo J, Hsueh PR, Mora-Rillo M, Gracia-Ahufinger I, Pascual A, Rodríguez-Baño J; REIPI/ESGBIS/INCREMENT Group. Ertapenem for the treatment of bloodstream infections due to ESBL-producing Enterobacteriaceae: a multinational pre-registered cohort study. <i>J Antimicrob Chemother.</i> 2016 Jun;71(6):1672-80. doi: 10.1093/jac/dkv502. Epub 2016 Feb 22.
Journal Article	Choudhury MA, Marsh N, Banu S, <b>Paterson DL</b> , Rickard CM, McMillan DJ. Molecular Comparison of Bacterial Communities on Peripheral Intravenous Catheters and Matched Skin Swabs. <i>PLoS One.</i> 2016 Jan 5;11(1):e0146354. doi: 10.1371/journal.pone.0146354. eCollection 2016.
Journal Article	Furuya-Kanamori L, Wangdi K, Yakob L, McKenzie SJ, Doi SA, Clark J, <b>Paterson DL</b> , Riley TV, Clements AC. 25-Hydroxyvitamin D Concentrations and <i>Clostridium difficile</i> Infection: A Meta-Analysis. <i>JPEN J Parenter Enteral Nutr.</i> 2015 Dec 23. pii: 0148607115623457. [Epub ahead of print]
Journal Article	Nation RL, Garonzik SM, Li J, Thamlikitkul V, Giamarellos-Bourboulis EJ, <b>Paterson DL</b> , Turnidge JD, Forrest A, Silveira FP. Updated US and European Dose Recommendations for Intravenous Colistin: How Do They Perform? <i>Clin Infect Dis.</i> 2016 Mar 1;62(5):552-8. doi: 10.1093/cid/civ964. Epub 2015 Nov 25.
Journal Article	<b>Paterson DL</b> , Harris PN. Colistin resistance: a major breach in our last line of defence. <i>Lancet Infect Dis.</i> 2016 Feb;16(2):132-3. doi: 10.1016/S1473-3099(15)00463-6. Epub 2015 Nov 19.



Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal Article	Popejoy MW, <b>Paterson DL</b> , Cloutier D, Huntington JA, Miller B, Bliss CA, Steenberg JN, Hershberger E, Umeh O, Kaye KS. Efficacy of ceftolozane/tazobactam against urinary tract and intra-abdominal infections caused by ESBL-producing <i>Escherichia coli</i> and <i>Klebsiella pneumoniae</i> : a pooled analysis of Phase 3 clinical trials. <i>J Antimicrob Chemother</i> . 2017 Jan;72(1):268-272. Epub 2016 Oct 5. PubMed PMID: 27707990.
Journal Article	Falcone M, <b>Paterson D</b> . Spotlight on ceftazidime/avibactam: a new option for MDR Gram-negative infections. <i>J Antimicrob Chemother</i> . 2016 Oct;71(10):2713-22. doi: 10.1093/jac/dkw239. Epub 2016 Jul 17. Review. PubMed PMID: 27432599.
Journal Article	Bandeshe H, Boots R, Dulhunty J, Dunlop R, Holley A, Jarrett P, Gomersall CD, Lipman J, Lo T, O'Donoghue S, Paratz J, <b>Paterson D</b> , Roberts JA, Starr T, Stephens D, Stuart J, Thomas J, Udy A, White H. Is inhaled prophylactic heparin useful for prevention and Management of Pneumonia in ventilated ICU patients?: The IPHIVAP investigators of the Australian and New Zealand Intensive Care Society Clinical Trials Group. <i>J Crit Care</i> . 2016 Aug;34:95-102. doi: 10.1016/j.jcrc.2016.04.005. Epub 2016 Apr 9. PubMed PMID: 27288618.
Journal Article	Graves N, Page K, Martin E, Brain D, Hall L, Campbell M, Fulop N, Jimmieson N, White K, <b>Paterson D</b> , Barnett AG. Cost-Effectiveness of a National Initiative to Improve Hand Hygiene Compliance Using the Outcome of Healthcare Associated Staphylococcus aureus Bacteraemia. <i>PLoS One</i> . 2016 Feb 9;11(2):e0148190. doi: 10.1371/journal.pone.0148190. eCollection 2016. PubMed PMID: 26859688; PubMed Central PMCID: PMC4747462.
Journal Article	White KM, Starfelt LC, Jimmieson NL, Campbell M, Graves N, Barnett AG, Cockshaw W, Gee P, Page K, Martin E, Brain D, <b>Paterson D</b> . Understanding the determinants of Australian hospital nurses' hand hygiene decisions following the implementation of a national hand hygiene initiative. <i>Health Educ Res</i> . 2015 Dec;30(6):959-70. doi: 10.1093/her/cyv057. PubMed PMID: 26590244.
Journal Article	Furuya-Kanamori L, Marquess J, Yakob L, Riley TV, <b>Paterson DL</b> , Foster NF, Huber CA, Clements AC. Asymptomatic <i>Clostridium difficile</i> colonization: epidemiology and clinical implications. <i>BMC Infect Dis</i> . 2015 Nov 14;15:516. doi: 10.1186/s12879-015-1258-4. Review. PubMed PMID: 26573915; PubMed Central PMCID: PMC4647607.
Journal Article	Harris PN, Wei JY, Shen AW, Abdile AA, Paynter S, Huxley RR, Pandeya N, Doi Y, Huh K, O'Neal CS, Talbot TR, <b>Paterson DL</b> . Carbapenems versus alternative antibiotics for the treatment of bloodstream infections caused by <i>Enterobacter</i> , <i>Citrobacter</i> or <i>Serratia</i> species: a systematic review with meta-analysis. <i>J Antimicrob Chemother</i> . 2016 Feb;71(2):296-306. doi: 10.1093/jac/dkv346. Epub 2015 Nov 4. Review. PubMed PMID: 26542304.
Journal Article	Bartley PB, Ben Zakour NL, Stanton-Cook M, Muguli R, Prado L, Garnys V, Taylor K, Barnett TC, Pinna G, Robson J, <b>Paterson DL</b> , Walker MJ, Schembri MA, Beatson SA. Hospital-wide Eradication of a Nosocomial <i>Legionella pneumophila</i> Serogroup 1 Outbreak. <i>Clin Infect Dis</i> . 2016 Feb 1;62(3):273-9. doi: 10.1093/cid/civ870. Epub 2015 Oct 13. PubMed PMID: 26462745.
Journal Article	Lim A, Kaur G, Poyck P, Vyas V, Redmond A, Quinn S. <i>Bacillus Calmette-Guérin</i> immunotherapy: a rare cause for a ruptured common femoral artery. <i>ANZ J Surg</i> . 2016 Apr 15. doi: 10.1111/ans.13595. [Epub ahead of print] PMID: 27079294
Journal Article	<b>Chew R</b> , Dorman A, <b>Woods ML</b> . <i>Purpureocillium lilacinum</i> keratitis: a case series and review of the literature. <i>Can J Ophthalmol</i> . 2016 Oct;51(5):382-385. doi: 10.1016/j.jcjo.2016.05.013. Epub 2016 Sep 3. PMID: 2776933
Journal Article	<b>Chew R</b> , <b>Woods ML</b> . Flucloxacillin does not achieve therapeutic cerebrospinal fluid levels against methicillin-sensitive <i>Staphylococcus aureus</i> in adults: A case report and review of the literature. <i>Int J Antimicrob Agents</i> . 2016 Mar;47(3):229-31. doi: 10.1016/j.ijantimicag.2015.12.009. Epub 2016 Jan 15. PMID: 26915477

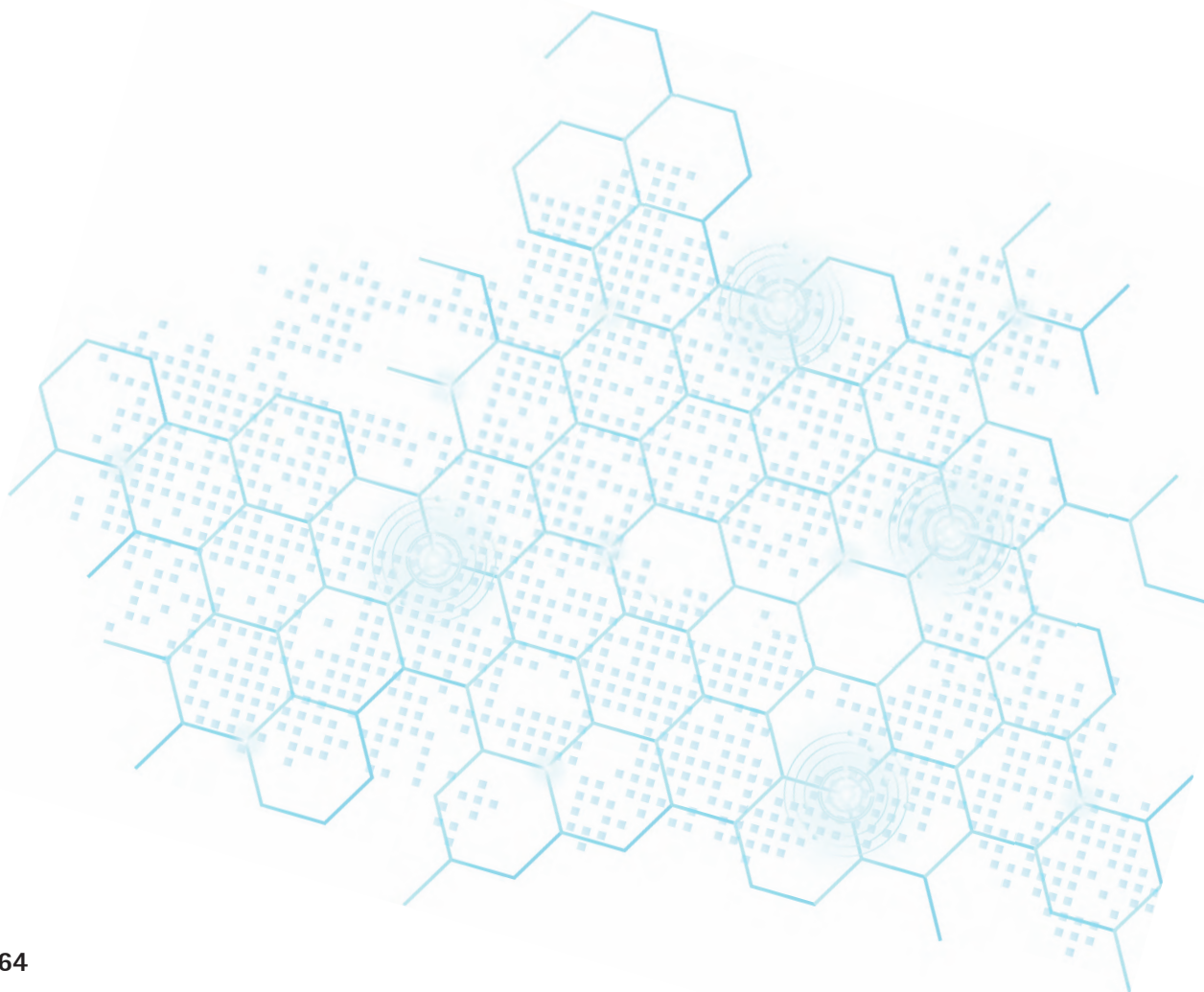


## 2016 Conference Presentations – Invited Speaker, Oral and Poster

Type (Oral / Poster / Invited)	Presentation information (RBWH staff in bold)
Poster	<b>Hall M.</b> Varicella Zoster virus containing vaccines in persons with low level immunocompromise Public Health Association of Australia National Immunisation Conference, 2016 and 25th annual Royal Brisbane and Women's Hospital Healthcare Symposium, 2016
Poster	<b>Hall M.</b> Improving healthcare worker vaccine uptake: Implementing a Nurse Practitioner led vaccination service. Public Health Association of Australia National Immunisation Conference, 2016 and 25th annual Royal Brisbane and Women's Hospital Healthcare Symposium, 2016
Oral	<b>McCarthy KL, Paterson DL.</b> Long term mortality following Pseudomonas aeruginosa blood stream infection. Australian Society for Infectious Diseases Annual Scientific Meeting 2016. Launceston, Australia.
Poster	<b>McCarthy KL, Paterson DL.</b> Community-acquired Pseudomonas aeruginosa bloodstream infection: a classification that should not falsely reassure the clinician. Australian Society for Infectious Diseases Annual Scientific Meeting 2016. Launceston, Australia.
Poster	<b>McCarthy KL, Paterson DL.</b> Recurrent Pseudomonas aeruginosa bacteraemia: Who is at risk? Asia-Pacific Congress of Clinical Microbiology and Infection 2016. Melbourne, Australia.
Oral	<b>McCarthy KL, Kidd TJ, Paterson DL.</b> The molecular epidemiology of Pseudomonas aeruginosa bloodstream infection isolates in a non-outbreak setting. Asia-Pacific Congress of Clinical Microbiology and Infection 2016. Melbourne, Australia.

## Research Publications / Presentations Summary Table

Research Group / Department	Publications		Presentations National and International	
	Journal Articles	Books and Chapters	Oral	Poster
<b>Infectious Diseases</b>	73	0	4	2



## Internal Medicine and Aged Care

The Internal Medicine Research Unit supports investigator initiated collaborative research with a particular focus on clinical and health services studies intended to directly improve hospital and post-hospital patient outcomes.

### Our main focus areas are:

- Reducing geriatric syndromes in older inpatients.
- Improving collaborative models of care for inpatients.
- Improving management of chronic diseases including heart failure, thyroid disease and multi-morbidity.
- Improving rational use of medications.
- Knowledge translation and implementation science.

Our researchers actively engage in translation activities including presenting at national and international forums, teaching, high level leadership and clinical redesign of services based on emerging evidence.

Major grants include the multi-site CHERISH project led by Dr Alison Mudge and funded by a \$1.5 million Queensland Accelerate Partnership grant. Fellowships include a Health and Medical Research Fellowship (Dr Mudge) and Junior Doctor Research Fellowship (Dr Dylan Flaws, co-supervised by Dr Mudge).

Dr Mudge and her team won the Metro North HHS Research Excellence Awards 2016 for *“Improving patient outcomes in an acute care setting”*.

### Supervised Post-graduate Research Students

Name (RBWH staff in bold)	Current Studies (e.g. PhD, Masters etc.)University (duration)	Research Project Title	Supervisors (RBWH staff in bold)
Julie Adsett	PhD Griffith 2012-2018	Aquatic exercise for patients with stable heart failure	Norman Morris, Suzanne Kuys, <b>Jennifer Paratz, Alison Mudge</b>
Angela Byrnes	PhD UQ 2015-2018	Investigating the nutritional status and care of older (65 years) patients on two general surgical wards: A multiphase, action research study	Judy Bauer, <b>Adrienne Young, Alison Mudge, Marilyn Banks</b>
Brooke Myers	PhD, UQ (2014-current)	Role of the Pharmacist on the Medical Post-Take Ward Round	<b>Ian Coombes</b> , Charles Mitchell, <b>Peter Donovan</b> , Jennifer Whitty
Carly Leiseman	Honours, UQ (2016)	Barriers and facilitators to post-operative mobility from the older patient's perspective	Alison Mandrusiak, R Nund, <b>Prue McRae, Alison Mudge, Mark Cruickshank</b>
Helen Fitzmaurice	Honours, UQ (2016)	Barriers and facilitators of post-operative mobility from the perspectives of physiotherapists and allied health assistants	Alison Mandrusiak, R Nund, <b>Prue McRae, Alison Mudge, Mark Cruickshank</b>

### Research Positions: Coordinators, Fellow, Adjunct and Honorary Positions

Name	Type of Position	Research Program	University Affiliation (years)
Alison Mudge	Adjunct Professor	Improving acute and post-hospital care of older patients	QUT (2013-current)
Charles Denaro	Associate Professor	Faculty of Medicine	UQ (1998-current)
Julie Adsett	National Heart Failure or Australia Postgraduate Scholarship	Safety and efficacy of aquatic exercise in patients with stable heart failure	NHF 2012-17
Dylan Flaws	Queensland Junior Doctor Fellowship	Developing and validating a delirium risk score in older inpatients	2016-2018
Karen Lee-Steere	Metro North CAHRLI pre-PhD Fellowship	Improving care of older patients with or at risk of delirium	2016

## Current Research Group / Department Led Research Activity

Research Group / Department Lead Researchers	Collaborative Researchers	Research Project Title
Alison Mudge	<b>Prue McRae, Merrillyn Banks, Adrienne Young, Teresa Green,</b> Adrian Barnett (QUT), Irene Blackberry(Latrobe), Nick Graves N (QUT), Ruth Hubbard (UQ),Sharon Inouye (Harvard), Sue Kurrle (U Syd), Kwan Lim (U Melb), Nancye Peel(UQ)	CHERISH: Collaborative for Hospitalised Elders Reducing the Impact of Stays in Hospital
Alison Mudge, Prue McRae	Paul Bew (Brighton), Jofferson Yarde (Brighton), Debbie Leahy (Brighton), Simon Smith and Alicia Allen(QUT)	Moving Brighton Forward: mobility in a subacute setting
Julie Adsett	<b>Alison Mudge, Jenny Paratz</b> (Crit Care), Norm Morris (Griffith), Suzanne Kuys (ACU)	Aquatic exercise compared to land based exercise for heart failure
Peter Donovan	Christine Rowland (Greenslopes Private Hospital) <b>Emma Duncan</b> (Endocrinology) <b>Alison Mudge</b> (Internal Medicine) <b>Paul Tesar</b> (Radiology)	Teriparatide for Pelvic Fracture Healing
Peter Donovan	<b>Donald McLeod (Endocrinology)</b> Louisa Gordon (QIMR Berghofer)	Cost Utility Analysis of the Primary Therapies for Graves' Disease
Alison Mudge	Statewide Older Person Health Clinical Network acute care workgroup	Statewide survey of older person friendly hospital practices
Alison Mudge	Adrienne Young, Ruth Hubbard (UQ)Prue McRae, Merrillyn Banks, Fred Graham (MSHHS), Elizabeth Beattie (QUT), Len Gray (UQ)	The older person friendly hospital
Alison Mudge	Paul Scuffham (Griffith), Shoko Maru (Griffith), Jessica Suna	Cost-effectiveness analysis of a randomised controlled trial of supervised exercise training for recently discharged heart failure (EJECTION-HF)
Peter Donovan (Clinical Pharmacology)	Donald McLeod (Endocrinology) Louisa Gordon (QIMR Berghofer)	Cost Utility Analysis of the Primary Therapies for Graves' Disease

## Collaborative Research Activity

Collaborative Lead Researchers (RBWH staff in bold)	Your Research Group / Department Researchers	Research Project Title
Donald McLeod (Endocrinology)	Peter Donovan, Michael Keogh (Endocrinology)	Treat-to-Target TRAb in Graves' Disease
Douglas C (Pall Care)	Alison Mudge, Stephen Murray, Michael Tresillian, Xanthe Sansome, Simon Finnigan,Cheryl Blaber (SQU)	Point prevalence survey of end of life predictors and care in a major tertiary hospital
Phillip Robinson (Rheumatology)	Peter Donovan Nicola Dalbeth (University of Auckland, Auckland Hospital)	A Health Economic Analysis Of The American College Of Rheumatology Guideline To Monitor Serum Urate Every 6 Months After Reaching Target In Gout Treatment
Ian Coombes (Pharmacy)	Peter Donovan , Michael Barras (Pharmacy), Charles Mitchel (UQ), Brooke Myers, Christy Noble, Trudy Teasdale, Linda Stockwell (Gold Coast University Hospital)	Improving Intern Medical Officer Prescribing through an Intervention of Self-Assessment and Feedback
Hannah Farquhar (Medicine)	Don McLeod (Endocrinology), Peter Donovan, Roger Allison (Cancer Care), Susan Thomas (Cancer Care), Lee Tripcony (Cancer Care)	Validating a response to therapy risk stratification system for Medullary Thyroid Cancer

## Research Awards and Achievements

Recipient	Award	Event
Alison Mudge	Metro North HHS Research Excellence Award	Metro North HHS Research Excellence Awards 2016

## Research Grants – Awarded

Investigators (RBWH staff in bold)	RBWH Research Groups / Departments	Project Title	Granting Body	Amount in 2016	Total Amount (years)
<b>Alison Mudge, Prue McRae, Merrilyn Banks, Adrienne Young, Teresa Green,</b> Adrian Barnett, Irene Blackberry, Nick Graves, Ruth Hubbard, Sharon Inouye, Sue Kurrle, Kwan Lim, Nancy Peel	Internal Medicine and Aged Care; Nursing; Nutrition and Dietetics	CHERISH: Collaborative for Hospitalised Elders Reducing the Impact of Stays in Hospital	Queensland Accelerate Partnership Grant	\$500,000	\$1,500,000 (2015-2017)
<b>Julie Adsett,</b> Norman Morris, <b>Alison Mudge</b>	IMAC, Heart failure services	Aquatic versus land based exercise training for people with stable heart failure	National Heart Failure Postgraduate Scholarship	\$11,864	\$71439.50 (2012-2017)
<b>Alison Mudge,</b> Ruth Hubbard, Len Gray, Elizabeth Whiting, Elizabeth Beattie, <b>Merrilyn Banks, Prue McRae,</b> Fred Graham, <b>Adrienne Young</b>	IMAC, Nutrition and Dietetics	The Older Person Friendly Hospital,	Brisbane Diamantina Health Partners Strategic Partnership Grant	\$14,000	\$20,000
<b>Alison Mudge, Prue McRae,</b> Paul Bew, Debbie Leahy, Stephen Smith, Alicia Allen	IMAC	Moving Brighton Forwards: an observational study of mobility patterns and barriers in a sub-acute care setting,	MNHHS SEED Project,	\$73,491	\$73,491
<b>Ian Coombes, Peter Donovan,</b> Michael Barras, Charles Mitchel, Brooke Myers, Christy Noble, Trudy Teasdale, Linda Stockwell	Pharmacy, <b>Clinical Pharmacology</b>	Improving Intern Medical Officer Prescribing through an Intervention of Self-Assessment and Feedback	RBWH Foundation	\$40,000	\$40,000
Hoy W, <b>Mallett A, Healy H,</b> Cameron A, Thomas M, Denaro C.	Renal medicine, IMAC	aCQuiRE study	Sanofi/Genzyme		\$946,554
Mudge A and SOPHCN Acute Care Working Group	IMAC	Older Person Friendly Hospital Statewide Survey	Health Innovation Fund 2015-6	\$50,000	\$72,000

## 2016 Research Publications

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal Article	Hwang R, Morris NR, Mandrusiak A, <b>Mudge A, Suna J, Adsett J,</b> Russell T. Timed up and go test: A reliable and valid test in patients with chronic heart failure. J Card Fail. 2016; 22(8): 646-650.
Journal Article	<b>Chari S,</b> Smith S, <b>Mudge A,</b> Black A, Figuero M, Ahmed M, Devitt M, Haines TP. Feasibility of a stepped wedge cluster RCT and concurrent observational sub-study to evaluate the effects of modified ward night lighting on inpatient fall rates and sleep quality: a protocol for a pilot trial. BMC Pilot and Feasibility Studies 2016 2:1
Journal Article	<b>Banks M,</b> Ross L, <b>Webster J, Mudge A, Stankiwicz M, Dwyer K, Coleman K, Campbell J.</b> Does treatment with an intensive nutrition intervention improve pressure ulcer healing compared to standard care in an acute hospital setting? A pilot randomised controlled study. J Wound Care 2016;25 (7):384-392
Journal Article	<b>Young A, Allia A, Joliffe L,</b> De Jersey S, <b>Mudge A, McRae P, Banks M.</b> Assisted or Protected Mealtimes? Exploring the impact of hospital mealtime practices on meal intake J Adv Nurs 2016; 72:1616-25
Journal Article	<b>Pattullo CS,</b> Barras M, Tai B, McKean M, <b>Donovan PJ.</b> New Oral Anticoagulants (NOACs) – appropriateness of prescribing in real- world setting: NOACs – appropriateness of prescribing. Intern Med J. 2016 Jul;46(7):812-8.
Journal Article	<b>McRae PJ, Walker PJ, Peel NM, Hobson D, Parsonson F, Donovan P, Reade MC, Marquart L, Mudge AM.</b> Frailty and Geriatric Syndromes in Vascular Surgical Ward Patients. Ann Vasc Surg. 2016 Aug;35:9-18. doi: 10.1016/j.avsg.2016.01.033. Epub 2016 May 27.



Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal Article	<b>Donovan PJ, McLeod DS</b> , Little R, Gordon L. Cost-Utility Analysis Comparing Radioactive Iodine, Antithyroid Drugs and Total Thyroidectomy for Primary Treatment of Graves' Disease. <i>Eur J Endocrinol.</i> 2016 Dec;175(6):595-603. Epub 2016 Sep 15.
Journal Article	<b>Mudge A</b> , Radnedge K, <b>Kasper K, Mullins R, Adsett J, Rofail S, Lloyd S, Barras M</b> . Effects of a pilot multidisciplinary clinic for frequent attending elderly patients on deprescribing. <i>Aust Health Review</i> 2016; 40:86-91
Journal Article	<b>Mudge AM, McRae P</b> , McHugh K, Griffin L, Hitchen A, Walker J, Cruickshank M, Morris NR, Kuys S. Poor mobility in hospitalised patients of all ages. <i>J Hosp Med.</i> 2016 Apr;11(4):289-91.
Journal Article	Kozor R, Grieve SM, Tchan MC, Callaghan F, Hamilton-Craig C, <b>Denaro C</b> , Moon JC, Figtree GA. Cardiac involvement in genotype-positive Fabry disease patients assessed by cardiovascular MR. <i>Heart</i> 2016; 102:298-302. doi: 10.1136/heartjnl-2015-308494.
Journal Article	<b>Denaro C</b> , Martin J. The Challenge of Costly Drugs. <i>Aust Prescr</i> 2016; 39:72-74.
Journal Article	<b>Carroll R, Mudge A, Suna J, Denaro C, Atherton J</b> . Prescribing and up-titration in recently hospitalized heart failure patients attending a disease management program. <i>Int J Card</i> 2016; 216:121-127. doi:10.1016/j.ijcard.2016.04.084
Journal Article	Hickey A, <b>Suna J</b> , Marquart L, <b>Denaro CP</b> , Javorsky G, Munns A, <b>Mudge A, Atherton J</b> . Improving medication titration in heart failure by embedding a structured medication titration plan. <i>Int J Card</i> 2016; 224:99-106. doi: 10.1016/j.ijcard.2016.09.001
Letter	<b>Denaro C</b> , Martin J. The challenge of costly drugs – a response to a Letter to the Editor. (Letter), <i>Aust Prescr</i> 2016; 39:149

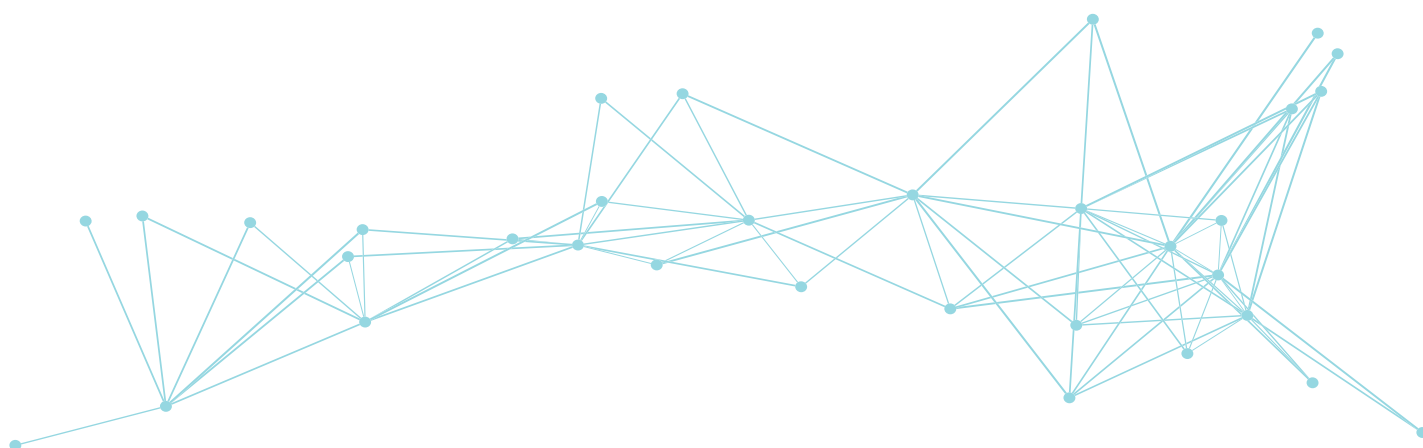


## 2016 Conference Presentations – Invited Speaker, Oral and Poster

Type (Oral / Poster / Invited)	Presentation information (RBWH staff in bold)
Poster	<b>Lee-Steere K, McRae P, Cahill M, Kurtz B, Mudge A.</b> A systematic approach to preventing delirium in acute hospitals. Australian Delirium Society meeting 2016
Poster	<b>Adsett J,</b> Morris N, Kuys S, Hwang R, Mullins R, Khatun M, Paratz J, Mudge A. Aquatic exercise is effective at maintaining exercise performance in trained heart failure patients : A randomised crossover trial. ESC Heart Failure Congress Florence 2016
Invited speaker	<b>Adsett J,</b> Heart Failure and exercise training : What's new? Queensland Cardiovascular Health and Rehabilitation Association Conference 2016
Oral	<b>Adsett J.</b> Aquatic exercise is effective at maintaining exercise performance in patients with stable heart failure. National Heart Foundation Qld Cardiovascular Research Showcase 2016
Invited speaker	<b>Adsett J.</b> Aquatic exercise and heart failure. State-wide Heart Failure Services Exercise Forum June 2016
Invited speaker	<b>Mudge A.</b> The science of implementation: how to evaluate the benefits of clinical interventions and factors for success" Metro North HHS Research Workshop September 2016.
Invited speaker	<b>Mudge A.</b> Predictors of outcomes for patients attending heart failure rehabilitation Statewide heart failure Services Exercise Training and Heart Failure workshop June 2013
Invited speaker	<b>Mudge A.</b> The older person friendly hospital. Statewide General Medicine Clinical Network Annual Forum December 2016
Invited speaker and facilitator	Kitson A, Harvey G, Damschroder L, <b>Mudge A,</b> Campbell M. Knowledge Translation and Implementation . In collaboration with AusHSI, University of Adelaide and the Deeble Institute. Three day workshop.
Invited speaker and facilitator	Kitson A, Harvey G, <b>McRae P, Young A,</b> Campbell M, Karnon J, Knowledge Translation Workshop, Getting Evidence into Practice: Steps to Success, University of Adelaide and AusHSI, Adelaide 15-17 November 2016. THREE DAY WORKSHOP

## Research Publications / Presentations Summary Table

Research Group / Department	Publications		Presentations National and International	
	Journal Articles	Books and Chapters	Oral	Poster
<b>Internal Medicine and Aged Care</b>	13	0	10	2



## Kidney Health Service

The Kidney Health Service activated important new research programs in delivering patient care in better ways, in giving our patients greater certainty about the cause of their genetic kidney disease and in expanding the knowledge of the pathobiology of chronic diseases in the kidneys. During 2016 we also built the research outputs of the two prestigious NHMRC funded Centres of Research Excellence, in Chronic Kidney Disease (CKD) and End of Life. Dr Helen Healy was awarded an inaugural MNHHS Research Excellence Award, in the category of Chronic Disease and Community Care, in May for the work of the CKD.CRE Collaborative and Professor Ann Bonner the QUT Vice-Chancellor's Performance Award in December.

The profile of our young researchers is present throughout the programs with Dr Andrew Mallett appointed National Director of KIDGen, Dr Kassianos initiating his NHMRC funded project studying how dendritic cells operate in CKD and Dr Louise Purtell bringing the methods of Implementation Science to the evaluation of the Kidney Supportive Care program. The outputs of the Renal Nursing Professorial Unit, led by Professor Bonner and focusing on how our patients interact with the health system, are impressive.

Notable is the breadth of collaborations, both within RBWH and externally. They are characterised by bringing new investigators like Professors Suceena Alexander and Santosh Varughese, Vellore Christian Medical College, into established groups and strong relationships with researchers of outstanding track records, like Professors Wendy Hoy at the University of Queensland and Melissa Little at the Murdoch Research Institute. Not surprisingly the volume of conference presentations this year is considerable, attesting to the productivity of the research programs and signalling publications in future years.

And our patients are noticing the differences with responses recorded in the evaluation of one program as follows:

- What, there's a choice (*of treatment pathways*)? (*Patient*).
- I think that if we haven't been coming here things would have deteriorated purely because we didn't know what we're dealing with and probably would've been back in hospital ... just to find out what the hell's going on (*Carer*).
- They're doing things to suit patient, not to suit a generic patient (*Carer*).
- You get down to how a person is going (*Patient*).

## Supervised Post-graduate Research Students

Name (RBWH staff in bold)	Current Studies (e.g. PhD, Masters etc.)University (duration)	Research Project Title	Supervisors (RBWH staff in bold)
<b>Andrew Mallett</b>	PhD, UQ (2014-2016) Conferred	Genetic Diagnostics in Genetic Renal Disease - Methods, Applications and Therapeutics	<b>Dr Helen Healy</b> , Prof Wendy Hoy, Dr Val Hyland, Prof David Johnson
Becker M.P. Law	PhD, QUT (2015-2018)	Functional characterisation of lymphocyte subsets in human kidney disease	<b>Dr Helen Healy</b> , <b>Dr Andrew Kassianos</b> , Prof Ken Beagley, A/Prof Ray Wilkinson
<b>Brian Gregory</b>	MAppSc, QUT (2016-2018)	The effects of continuous renal replacement therapy and sustained low-efficiency dialysis on immunosuppressive drug levels in critically ill patients with acute kidney injury.	<b>Fiona Coyer</b> , <b>Ann Bonner</b> , Jason Roberts
<b>Colette Wembenyui</b>	MAppSc, QUT (2015-2017)	Self-management in people with chronic kidney disease	<b>Ann Bonner</b> , Clint Douglas
<b>David McIntyre</b>	MAppSc, QUT (2016-2018)	Haemodialysis nurse sensitive indicators	<b>Ann Bonner</b> , <b>Fiona Coyer</b>
Ha Thi Thuy Dinh	PhD, QUT (2013-2016) Conferred	Exploring teach-back as a method for improving Heart Failure knowledge and self-management	<b>Ann Bonner</b> , Joanne Ramsbotham, Robyn Clark
Hajar Alasmari	PhD, QUT (2013-2017)	Examining intensive care nurses' clinical decision-making associated with acute kidney injury and continuous renal replacement therapy	<b>Ann Bonner</b> , <b>Fiona Coyer</b>
Haunnah Rheault	DHlthSc, QUT (2014-2020)	Health literacy and chronic disease self-management in Indigenous Australians.	<b>Ann Bonner</b> , <b>Fiona Coyer</b>
Hayfa Almutary	PhD, QUT (2013-2017)	Exploring symptom clusters in people with chronic kidney disease	<b>Ann Bonner</b> , Clint Douglas

Name (RBWH staff in bold)	Current Studies (e.g. PhD, Masters etc.) University (duration)	Research Project Title	Supervisors (RBWH staff in bold)
Kathryn Havas	PhD, QUT (2014-2018)	Comparison of a brief and an in-depth intervention to support self-management in people with chronic kidney disease	<b>Ann Bonner</b> , Clint Douglas
Lan Van Hoang	PhD, QUT (2016-2019)	Relationship between health care supports, social supports and patient outcomes among haemodialysis population in Vietnam	<b>Ann Bonner</b> , <b>Theresa Green</b>
Leanne Brown	PhD, QUT (2013-2017)	Evaluating patient-centred decision making for end of life care in end stage kidney disease	Glenn Gardner, <b>Ann Bonner</b>
<b>Molly Milazi</b>	DHlthSc, QUT (2014-2020)	Nurse-led teach back intervention to improve people with End Stage Kidney Disease adherence with phosphate control	<b>Ann Bonner</b> , Clint Douglas
Nguyet Thi Nguyen	PhD, QUT (2014-2018)	Self-management of people with early stages of chronic kidney disease in Hanoi, Vietnam	<b>Ann Bonner</b> , Clint Douglas

## Research Positions: Coordinators, Fellow, Adjunct and Honorary Positions

Name	Type of Fellowship	Research Program	University Affiliation (years)
Ann Bonner	Honorary Research Fellow	Renal Nursing Professorial Unit	QUT (2011-current)
Ann Bonner	Honorary Professor	Faculty of Nursing & Midwifery	Hanoi Medical University (2014-current)
Ann Bonner	Visiting Renal Nurse Scholar	Renal Medicine	Princes Alexandra Hospital (2013-current)
Ann Bonner	Visiting Nurse Scholar	Department of Nursing	Logan & Beaudesert Hospitals (2014-current)

## Current Research Group / Department Led Research Activity

Research Group / Department Lead Researchers	Collaborative Researchers	Research Project Title
<b>Andrew Mallett</b>	Wendy Hoy (UQ), <b>Helen Healy (Kidney Health Service)</b> , <b>Charles Denaro (Department of Internal Medicine)</b>	The aCQuiRE Study (CKD.QLD Fabry Epidemiology)
<b>Andrew Mallett - KIDGen</b>	<b>Chirag Patel (Genetics Health Queensland)</b> , <b>Helen Healy (Kidney Health Service)</b> , <b>Julie McGaughran (Genetics Health Queensland)</b> , Melissa Little (Murdoch Research Institute), Lorna Hale, Ernst Wolvetang (IMB, UQ), Cas Simons (IMB, UQ), Jo Crawford, Ian Smyth (Monash), Peter Trnka (LCCH), Hugh McCarthy, Steve Alexander, Amali Mallawaarachchi, Cathy Quinlan (RMH), Zornitsa Stark	NGS and iPSC Applications in Genetic and Inheritable Kidney Disease
<b>Ann Bonner</b>	Patsy Yates (QUT), Geoff Mitchell (UQ), David Currow, Kathy Eagar (University of Wollongong), <b>Helen Edwards (QUT &amp; MNHHS Board)</b> , Glenn Gardner (QUT), Lindy Willmott (QUT), Robyn Clark (Flinders University), Jennifer Tieman (Flinders University)	NHMRC Centre of Research Excellence, End of Life Care (1060254).
<b>Ann Bonner</b>	Clint Douglas (QUT), Kathryn Havas (QUT), Cassandra Stone (Logan Hospital), Maureen Barnes (Logan Hospital), Jennifer Abel (Logan Hospital), Vincent Tam (QUT)	Evaluation of the integrated chronic disease nurse practitioner model of care
<b>Ann Bonner</b>	Katrina Campbell (Bond University)	Technology use for information in Kidney Disease: A Survey of CKD patients

Research Group / Department Lead Researchers	Collaborative Researchers	Research Project Title
<b>Ann Bonner</b>	Shirley Chambers (QUT), <b>Helen Healy (Kidney Health Service)</b> , Patsy Yates (QUT), Wendy Hoy (UQ), Geoff Mitchell (UQ), <b>Adrian Kark (Kidney Health Service)</b> , <b>Carol Douglas (Palliative Care)</b> , James Stevenson (TPCH), Caroline Johnson (UWA), <b>Sharad Ratanjee (Kidney Health Service)</b>	Achieving needs-based end-of-life services: A prospective, longitudinal study of the pathways for patients with Stage 3-5 Chronic Kidney Disease (CKD)
<b>Helen Healy</b>	<b>Ann Bonner (QUT &amp; Kidney Health Service)</b> , <b>Luke Worth (Executive)</b> , <b>Ilse Berquier (Kidney Health Service)</b> , Luke Connolly (UQ), <b>Carol Douglas (Palliative Care Services)</b> , <b>Clint Douglas (QUT)</b> , <b>Kate Mason (Division of Internal Medicine)</b> , <b>Mike Terry (Kidney Health Service)</b> , Wendy Hoy (UQ), Patsy Yates (QUT)	Evaluating the implementation of a Kidney Supportive Care Program into a Hospital and Health Service
<b>Helen Healy</b>	Ray Wilkinson (QPathol), <b>Andrew Kassianos (Kidney Health Service)</b> , <b>George John (Kidney Health Service)</b> , <b>Melissa Rist (Kidney Health Service)</b> , <b>Katrina Kildey (Kidney Health Service)</b> , Xiangju Wang (QPathol), Becker Law (QPathol, QUT)	Identifying biologically relevant control and switch points driving progression of chronic kidney disease
<b>Helen Healy</b>	Ross Francis (PAH), <b>Andrew Kassianos (Kidney Health Service)</b> , Ray Wilkinson (QPathol), <b>George John (Kidney Health Service)</b> , <b>Katrina Kildey (Kidney Health Service)</b>	The molecular language of Immune cells in renal transplant rejection
<b>Helen Healy, Ann Bonner</b>	Wendy Hoy (UQ), Luke Connolly (UQ), Geoff Mitchell (UQ), Kathryn Panaretto (Queensland Aboriginal and Islander Health Council), Zoltan Endre (UNSW), Glenda Gobe (UQ), Jeff Coombes (UQ), Rob Fassett (UQ)	NHMRC Chronic Kidney Disease Centre of Research Excellence (1079502)

## Collaborative Research Activity

Collaborative Lead Researchers (RBWH staff in bold)	Your Research Group / Department Researchers	Research Project Title
Chen Au Peh (Royal Adelaide Hospital, AKTN)	<b>Dwarakanathan Ranganathan</b>	Plasma Exchange in Vasculitis – the PLEXIVAS Study
David Jayne (University of Cambridge)	<b>Dwarakanathan Ranganathan, Andrew Mallett</b>	Rituximab with azathioprine as maintenance therapy in relapsing ANCA-associated vasculitis
Nicole Isabel (Princess Alexandra Hospital)	<b>Dwarakanathan Ranganathan, Andrew Mallett</b>	aHUS registry
Patsy Yates (QUT)	<b>Ann Bonner</b>	Postdoctoral research fellowships
Suceena Alexander (Christian Medical College, Vellore, India)	<b>Helen Healy, George John, Andrew Kassianos</b>	Pathogenic molecular and cellular signalling leading to chronic kidney disease in primary Focal and Segmental Glomerulosclerosis (FSGS) in Indians
Santosh Varughese (Christian Medical College, Vellore)	<b>Helen Healy, George John, Andrew Kassianos</b>	Molecular profiling in renal allograft recipients with acute rejection and chronic allograft dysfunction

## Research Awards and Achievements

Recipient	Award	Event
Andrew Mallett	Best Collaborative Research Award	2016 RBWH Symposium
Ann Bonner	QUT Vice-Chancellor's Performance Award	QUT Awards, 11 December 2016
Ann Bonner	Lifetime member	Renal Society of Australasia, 20 June 2016



Recipient	Award	Event
Ann Bonner	Best Manuscript prize	45th EDTNA/ERCA International Conference, Spain, 17-20 September 2016
Ann Bonner	Best Oral presentation	6th Pan-Pacific Nursing Conference and First Colloquium on Chronic Illness Care, Hong Kong, 3-5 March 2016
Becker Law	Queensland Pathology Scholarship	PhD studies – commenced 2015
Helen Healy	Finalist, Basic Science Award	51st Australian and New Zealand Society of Nephrology Annual Scientific Meeting
Helen Healy, Wendy Hoy, Ann Bonner	Chronic Disease and Community Care	Research Excellence Awards, Metro North Hospital and Health Service May 2016

## Research Grants – Awarded

Investigators (RBWH staff in bold)	RBWH Research Groups / Departments	Project Title	Granting Body	Amount in 2016	Total Amount (years)
<b>Andrew Kassianos, Helen Healy, Ray Wilkinson</b>	Kidney Health Service	Proximal tubule epithelial cell (PTEC)-lymphocyte cross-talk during renal hypoxic injury.	Royal Brisbane and Women's Hospital Research Grant		\$40,000 (2016)
<b>Andrew Kassianos, Helen Healy, Ray Wilkinson, Leo Francis, Ross Francis</b>	Kidney Health Service	Pathogenic dendritic cells in human kidney disease – APP1099222	NHMRC		\$370,983 (2016-2018)
<b>Andrew Mallett, Helen Healy, Chirag Patel, Julie McGaughran, Cas Simons, Melissa Little</b>	Kidney Health Service, Genetic Health QLD	Functional Genomics in Inherited Kidney Disease	Royal Brisbane and Women's Hospital Research Foundation Project Grant	\$40,000	
<b>Helen Healy, Andrew Kassianos, Ray Wilkinson, Andreas Moller, Jason Mulvenna</b>	Kidney Health Service	The functional characterization of primary human proximal tubule epithelial (PTEC)-derived exosomes	Royal Brisbane and Women's Hospital Research Grant	\$40,000	
<b>Helen Healy, Ann Bonner, Luke Worth, Ilse Berquier, Luke Connolly, Carol Douglas, Clint Douglas, Kate Mason, Mike Terry, Wendy Hoy, Patsy Yates</b>	Kidney Health Centre	Evaluating the implementation of a Kidney Supportive Care Program into a Hospital and Health Service	Australian Centre for Health Service (AushSI)	\$150,000	\$150,000 (2016)
Leanne Brown, <b>Ann Bonner</b> , Glenn Gardner	Kidney Health Service	A randomised controlled trial (RTC) of a decision support intervention to support patients' decision making for management of end stage kidney disease	Queensland Health	\$9,959	\$9,959 (2016)
Melissa Little, Ian Smyth, Cas Simons, Steve Alexander, <b>Andrew Mallett</b>	Kidney Health Service	Applying Functional Genomics to Kidney Disease – APP1098654	NHMRC		\$1,229,316 (2016-2019)
Patsy Yates, Geoff Mitchell, David Currow, Kathy Eagar, <b>Helen Edwards</b> , Glenn Gardner, Lindy Willmott, <b>Ann Bonner</b> , Robyn Clark, Jennifer Tierman	Kidney Health Centre	End of Life Care Centre of Research Excellence	NHMRC	\$515,511	\$2,495,543 (2013-2018)
Ray Wilkinson, <b>Helen Healy, Andrew Kassianos</b>	Kidney Health Service	The functional characterization of primary human proximal tubule epithelial (PTEC)-derived exosomes	Pathology Queensland Study Education and Research Trust Fund – Project grant.	\$34,500	\$34,500 (2016)
Wendy Hoy, <b>Helen Healy, Andrew Mallett, Charles Denaro</b> , Mark Thomas	Kidney Health Service, Internal Medicine and Aged Care	The aQuiRe Study	Sanofi-Genzyme		\$946,554 (2016-2019)

Investigators (RBWH staff in bold)	RBWH Research Groups / Departments	Project Title	Granting Body	Amount in 2016	Total Amount (years)
Wendy Hoy, <b>Helen Healy</b> , Luke Connolly, Geoff Mitchell, Kathryn Panaretto, Zoltan Endre , Jeff Coombes, Glenda Gobe, Ann Bonner, Rob Fassett	Kidney Health Centre	Chronic Kidney Disease Centre of Research Excellence	NHMRC	\$500,000	\$2,496,981 (2014-2019)

## 2016 Research Publications

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal Article	Almutary H, <b>Bonner A</b> , Douglas C. Symptom burden in advanced stages of chronic kidney disease. <i>J Renal Care</i> . 2016;42(2): 73-82.
Journal Article	Almutary H, Douglas C, <b>Bonner A</b> . Multidimensional symptom clusters: An exploratory factor analysis in advanced chronic kidney disease. <i>J Adv Nurs</i> . 2016;72(10):2389-2400.
Journal Article	Brown L, Gardner G, <b>Bonner A</b> . A randomised controlled trial protocol testing a decision support intervention for older patients with advanced kidney disease. <i>J Adv Nurs</i> . 2016;72(5):1191-1202.
Journal Article	Chan S, Francis LP, <b>Kark AL</b> , Bigby KJ, <b>Healy HG</b> and Chern BW. A case of everolimus induced tubular toxicity in non renal carcinoma. <i>Internal Medicine Journal</i> . 2016;46(12):1454-1455.
Journal Article	Chiang M, Tullett K, Lee Y, Idris A, Ding Y, McDonald K, <b>Kassianos A</b> , Leal Rojas I, Jeet V, Lahoud M, Radford K. Differential uptake and cross-presentation of soluble and necrotic cell antigen by human DC subsets. <i>European Journal of Immunology</i> . 2016; 46(2):329-39.
Journal Article	Francis A, Burke J, Francis L, McTaggart S, <b>Mallett A</b> . Polypoid change of the glomerular basement membrane in a child with steroid resistant nephrotic syndrome and ARHGAP24 mutation: a case report. <i>The Open Urology and Nephrology Journal</i> . 2016; 9:88-93.
Journal Article	Dinh TTH, <b>Bonner A</b> , Clark R, Ramsbotham J, Hines S. The effectiveness of health education using the teach-back method on adherence and self-management in chronic disease. <i>JBIC Database Systematic Rev Implementation Reports</i> . 2016;14(1):210-247.
Journal Article	Havas K, <b>Bonner A</b> , Douglas C. Self-management support for people with chronic kidney disease: An integrative review of patient perspectives. <i>J Renal Care</i> . 2016;42(1):7-14.
Journal Article	<b>Mallett A</b> , Flowles LF, <b>McGaughran J</b> , <b>Healy H</b> , <b>Patel C</b> . A multidisciplinary renal genetics clinic improves patient diagnosis. <i>Medical Journal of Australia</i> . 2016; 204(2):58-9.
Journal Article	Ross L, Chong SH, Mason B, <b>Healy H</b> . Development and evaluation of a Scored Sodium Questionnaire (Short Form) for screening sodium intakes. <i>Journal of Renal Nutrition</i> . 2016;26(3):159-167.
Journal Article	Tong A, Tunnicliffe DJ, Lopez-Vargas P, <b>Mallett A</b> , Patel C, Savige J, Campbell K, Patel M, Tchan MC, Alexander SI, Lee V, Craig JC, Fassett R, Rangan GK. Identifying and integrating consumer perspectives in clinical practice guidelines on autosomal dominant polycystic kidney disease. <i>Nephrology</i> . 2016; 21(2):122-32.
Journal Article	Sendall M, McCosker L, Crossley K, <b>Bonner A</b> . 2016. A structured review of Chronic Care Model components supporting transition between healthcare service delivery types for older people with multiple chronic diseases. <i>Hlth Info Management J</i> . 2016; [early online view], DOI: 10.1177/1833358316681687
Journal Article	Wei H, <b>Bonner A</b> , Anderson D. Patient reported adherence to hypertension management: A revalidation study. <i>Euro J Cardiovascular Nurs</i> . 2016;15(2):150-156.

## 2016 Conference Presentations – Invited Speaker, Oral and Poster

Type (Oral / Poster / Invited)	Presentation information (RBWH staff in bold)
Oral	Abel J, Havas K, Stone C, Barnes M, Hetherington J, Douglas C, <b>Bonner A</b> . Two clinical cases to illustrate an integrated nurse practitioner approach to improving the management of people with complex chronic disease comorbidities. Australian Diabetes Society and the Australian Diabetes Educators Association, annual scientific meeting. Melbourne, August 2016
Poster	<b>Abeysekera R</b> , Wang Z, <b>Healy H</b> , Cameron A, Hoy W. Comparison of different definitions of chronic kidney disease (CKD) progression in patients in a metropolitan public renal practice, Queensland, Australia. In: Nephrology 2016;21(S2):211. Poster presented at: 15th Asian Pacific Congress of Nephrology & 51st Annual Scientific Meeting Australian and New Zealand Society of Nephrology; 2016 September 17-21; Perth, Australia.
Poster	<b>Abeysekera R</b> , Wang Z, <b>Healy H</b> , Cameron A, Hoy W. Factors associated with Chronic Kidney Disease (CKD) progression, by different definitions, in patients in a Queensland Metropolitan public renal practice. In: Nephrology 2016;21(S2):212. Poster presented at: 15th Asian Pacific Congress of Nephrology & 51st Annual Scientific Meeting Australian and New Zealand Society of Nephrology; 2016 September 17-21; Perth, Australia.
Oral	Almutary H, Douglas C, <b>Bonner A</b> . Explaining how symptoms cluster together in advanced stages of chronic kidney disease. Renal Society of Australasia, 44th annual conference. Gold Coast, June 2016
Poster	<b>Austin L</b> , <b>Parker N</b> . Improving the renal nurses' education experience: using an education needs analysis survey. Renal Society of Australasia, 44th annual conference. Gold Coast, June 2016
Oral	Barnes M, Stone C, Abel J, Hetherington J, <b>Bonner A</b> , Douglas C, Havas K. Chronic disease nurse practitioners working in a collaborative model: Understanding team dynamics. Australian College of Nurse Practitioners, 11th annual conference. Alice Spring, August 2016
Oral	<b>Berquier I</b> , <b>Bonner A</b> , <b>Healy H</b> , <b>Terry M</b> , <b>Douglas C</b> . Kidney supportive care program: implementing an alternative pathway of care. Australian Disease Management Association, 12th annual conference. Melbourne, October 2016
Poster	<b>Berquier I</b> , <b>Douglas C</b> , <b>Healy H</b> , <b>Bonner A</b> . Translating supportive care into kidney health. Statewide Cardiac, Diabetes and Renal Clinical Networks Combined Forum. Brisbane, June 2016
Oral	<b>Berquier I</b> , <b>Terry M</b> , <b>Taylor B</b> , <b>Douglas C</b> , <b>Healy H</b> . Kidney supportive care program: From concept to implementation. Renal Society of Australasia, 44th annual conference. Gold Coast, June 2016
Invited Speaker	<b>Bonner A</b> . Chronic Disease Comorbidity: Challenging Healthcare Providers to Innovate Renal Society of Australasia, 44th annual conference. Gold Coast, June 2016.
Invited Speaker	<b>Bonner A</b> . Health Literacy and Renal Healthcare – Why does it Matter? European Dialysis and Transplant Nurses Association/European Renal Care Association, 45th international conference., Valencia, Spain, September 2016
Invited Speaker	<b>Bonner A</b> . Options for older patients with chronic kidney disease. European Dialysis and Transplant Nurses Association/European Renal Care Association, 45th international conference. Valencia, Spain, September 2016
Oral	<b>Bonner A</b> , Corones K, Campbell K, Hayes B, Harvie B, Kelly J, Gillespie K, Havas K. Opportunities for technology use for self-management in chronic kidney disease: The Teli-CKD study. Renal Society of Australasia, 44th annual conference. Gold Coast, June 2016
Oral	<b>Bonner A</b> , Corones K, Campbell K, Hayes B, Harvie B, Kelly J, Gillespie K, Havas K. Evaluating how technology is used by people with chronic kidney disease. European Dialysis and Transplant Nurses Association/European Renal Care Association, 45th international conference. Valencia, Spain, September 2016
Oral	<b>Bonner A</b> , Douglas C, Stone C, Abel J, Barnes M, Hetherington J, Havas K. Bridging chronic disease siloes of healthcare: A novel integrated nurse-practitioner service. Statewide Cardiac, Diabetes and Renal Clinical Networks Combined Forum. Brisbane, June 2016
Oral	<b>Bonner A</b> , Stone C, Barnes M, Abel J, Havas K, Hetherington J. An innovative nurse practitioner-led health service for people with multiple chronic diseases. 6th Pan Pacific Nursing Conference. Hong Kong, March 2016
Poster	Chambers S, <b>Bonner A</b> , Chhabra S, <b>Healy H</b> , <b>Ratanjee S</b> , <b>Kark A</b> , Yates P, Hoy W. A feasibility study to track the last 12 months of life in chronic kidney disease patients: Baseline characteristics. Renal Society of Australasia, 44th annual conference. Gold Coast, June 2016
Poster	Chambers S, <b>Bonner A</b> , Chhabra S, <b>Healy H</b> , <b>Ratanjee S</b> , <b>Kark A</b> , Yates P, Hoy W. A feasibility study to track the last 12 months of life in chronic kidney disease patients: Baseline characteristics. Royal Brisbane and Women's Hospital, 25th annual symposium. Brisbane, September 2016
Poster	Chan S, Francis LP, <b>Kark AL</b> , Bigby KJ, Healy HG, Chern BW. Everolimus induced tubular toxicity in non renal cancer. In: Nephrology 2016;21(S2):259. Poster presented at: 15th Asian Pacific Congress of Nephrology & 51st Annual Scientific Meeting Australian and New Zealand Society of Nephrology; 2016 September 17-21; Perth, Australia.
Oral	Dheda S, Min H, Van Epps C, Johnson D, Vesey D, <b>Healy H</b> , Hawley C, Fahim M. Inflammation in haemodialysis. In: Nephrology 2016;21(S2):65. Paper presented at: 15th Asian Pacific Congress of Nephrology & 51st Annual Scientific Meeting Australian and New Zealand Society of Nephrology; 2016 September 17-21; Perth, Australia. (mini-oral).

Type (Oral / Poster / Invited)	Presentation information (RBWH staff in bold)
Oral	Dinh TTH, <b>Bonner A</b> , Ramsbotham J, Clark R. Training Vietnamese cardiac nurses about heart failure self-management and teach-back: A pilot study. Australasian Cardiovascular Nursing, annual conference. Melbourne, March 2016
Poster	Chan S, Cameron A, Wang Z, <b>Baboolal K, Mallett A, Healy H</b> , Hoy W. Association of body mass index with death and institution of renal replacement therapy in chronic kidney disease patients in CKD.QLD. Annual Scientific Meeting of the Australian and New Zealand Society of Nephrology & Asia-Pacific Congress of Nephrology. Perth, Australia. Sept 17-21, 2016.
Poster	Gobe GC, Endre ZH, Coombes JS, <b>Healy HG</b> , Wilkinson R, Tan KS, Cameron A, Hoy WE. Quality biobanking of chronic kidney disease specimens. In: Nephrology 2016;21(S2):208 abstract. Poster presented at: 15th Asian Pacific Congress of Nephrology & 51st Annual Scientific Meeting Australian and New Zealand Society of Nephrology; 2016 September 17-21; Perth, Australia.
Oral	Havas K, Douglas C, <b>Bonner A</b> . Supporting people with chronic kidney disease to self-manage: What do the patients want? Renal Society of Australasia, 44th annual conference. Gold Coast, June 2016
Oral	Havas K, Douglas C, <b>Bonner A</b> . The missing piece: Self-management support desires of patients with chronic kidney disease European Dialysis and Transplant Nurses Association/European Renal Care Association, 45th international conference. Valencia, Spain, September 2016
Invited speaker	<b>Healy H</b> . Evaluating the implementation of the Kidney Supportive Care Program into a Hospital and Health Service. 3rd Biennial Australasian Implementation Conference 5-6 October 2016 Melbourne Australia
Poster	<b>Healy H, Kassianos A</b> , Law B, Lindner M, Wang X, Beagley K, Wilkinson R. Increased recruitment of human lymphocyte subsets in renal fibrosis and chronic kidney disease. ISN Nexus Symposium – Translational Immunology in Kidney Disease. Berlin, Germany. April 14-17, 2016.
Poster	<b>Healy H</b> , Law B, Wang X, <b>Kassianos A</b> , Wilkinson R. Increased tubulointerstitial recruitment of human natural killer cells in renal fibrosis and chronic kidney disease. In: Journal of the American Society of Nephrology Supplement 2016;27:693A abstract 5178. Poster presented at: Kidney Week American Society of Nephrology; 2016 November 15-20; Chicago, US. (poster SA-P0279).
Poster	Hetherington J, Stone C, <b>Bonner A</b> , Barnes M, Abel J, Douglas C, Havas K. Integrated chronic disease nurse practitioner (ICDNP) model of care: Improving the patient journey. Renal Society of Australasia, 44th annual conference. Gold Coast, June 2016
Poster	Hoy WE, <b>Healy HG</b> , Connelly L, Mitchell G, Panaretto K, Endre Z, Coombes JS, Gobe G, Bonner A, Fassett RG, Cameron A. The NHMRC Chronic Kidney Disease Centre of Research Excellence (CKD.CRE) 2015-2019: the first year. In: Nephrology 2016;21(S2):204 abstract. Poster presented at: 15th Asian Pacific Congress of Nephrology & 51st Annual Scientific Meeting Australian and New Zealand Society of Nephrology; 2016 September 17-21; Perth, Australia
Poster	Hoy WE, <b>Healy HG</b> , Wang Z, Zhang J, <b>Abeysekera R</b> , Cameron A, Tan K. The spectrum of chronic kidney disease in public renal services of Queensland, Australia: Data from the CKD.QLD Registry. In: Journal of the American Society of Nephrology Supplement 2016;27:842A abstract 5178. Poster presented at: Kidney Week American Society of Nephrology; 2016 November 15-20; Chicago, US. (poster SA-P0907).
Poster	<b>Kassianos A</b> , Law B, Lindner M, Wang X, Beagley K, Wilkinson R, <b>Healy H</b> . Increased tubulointerstitial recruitment of human lymphocyte subsets in renal fibrosis and chronic kidney disease. The 16th International Congress of Immunology. Melbourne, Australia. August 21-26, 2016.
Oral	Law B, <b>Kassianos A</b> , Lindner M, Wang X, Beagley K, Wilkinson R, <b>Healy H</b> . Increased tubulointerstitial recruitment of human lymphocyte subsets in renal fibrosis and chronic kidney disease. Annual Scientific Meeting of the Australian and New Zealand Society of Nephrology. Perth, Australia. Sept 17-21, 2016.
Poster	<b>Liehr S</b> . A systematic review: a practical application of heel specific interventions for preventing heel pressure injury. Renal Society of Australasia, 44th annual conference. Gold Coast, June 2016
Oral	Mallawaarachchi A, <b>Mallett A</b> , McCarthy H, Patel C, Ho G, Holman K, Bennetts B, Alexander SI. Genetic testing provides high diagnostic yield in renal tubular disorders. Annual Scientific Meeting of the Australian and New Zealand Society of Nephrology & Asia-Pacific Congress of Nephrology. Perth, Australia. Sept 17-21, 2016.
Oral	Mallawaarachchi A, <b>Mallett A</b> , McCarthy H, Patel C, Ho G, Holman K, Durkan A, Bennetts B, Alexander SI. Genetic testing in complement mediated kidney disease – benefits and challenges in an adult and paediatric Australian cohort. Annual Scientific Meeting of the Australian and New Zealand Society of Nephrology & Asia-Pacific Congress of Nephrology. Perth, Australia. Sept 17-21, 2016.
Invited Speaker	<b>Mallett A</b> . The Pharmacological Management of ADPKD, KHA-CARI Guidelines Seminar & Symposium. Annual Scientific Meeting of the Australian and New Zealand Society of Nephrology & Asia-Pacific Congress of Nephrology. Perth, Australia. Sept 17-21, 2016.
Invited Speaker	<b>Mallett A</b> . The Genetics of aHUS, APCN Symposium. Annual Scientific Meeting of the Australian and New Zealand Society of Nephrology & Asia-Pacific Congress of Nephrology. Perth, Australia. Sept 17-21, 2016.
Oral	<b>Mallett A</b> . A comprehensive and multidisciplinary renal genetics clinic improves patient diagnosis and is an effective model for genomic mainstreaming
Oral	<b>Mallett A</b> , Mallawaarachchi A, McCarthy H, Ho G, Holman K, Patel C, Bennetts B, Alexander SI. Outcomes of diagnostic testing using an Australian Alpor Syndrome gene panel. Annual Scientific Meeting of the Australian and New Zealand Society of Nephrology & Asia-Pacific Congress of Nephrology. Perth, Australia. Sept 17-21, 2016.

Type (Oral / Poster / Invited)	Presentation information (RBWH staff in bold)
Oral	<b>Mallett A</b> , Mallawaarachchi A, McCarthy H, Ho G, Holman K, Patel C, Bennetts B, Alexander SI. Renal gene testing in the spectrum of inherited tubulointerstitial kidney diseases. Annual Scientific Meeting of the Australian and New Zealand Society of Nephrology & Asia-Pacific Congress of Nephrology. Perth, Australia. Sept 17-21, 2016.
Oral	<b>Mallett A</b> , Patel C, Crawford J, Alexander SI, Bennetts B, McCarthy H, Quinlan C, Maier B, Er P, Takasato M, <b>Healy H</b> , Smyth I, Little M, Simons C. Massively parallel sequencing and functional genomics can achieve genetic diagnosis in unresolved cases of genetic renal disease. Annual Scientific Meeting of the Australian and New Zealand Society of Nephrology & Asia-Pacific Congress of Nephrology. Perth, Australia. Sept 17-21, 2016.
Oral	McCarthy H, Mallawaarachchi A, Patel C, Ho G, Holman K, Fletcher J, <b>Mallett A</b> , Bennetts B, Alexander SI. Diagnostic gene panels for nephrotic syndrome allows stratification according to aetiology and thus directs management. Annual Scientific Meeting of the Australian and New Zealand Society of Nephrology & Asia-Pacific Congress of Nephrology. Perth, Australia. Sept 17-21, 2016.
Oral	McCarthy H, Mallawaarachchi A, Patel C, Ho G, Holman K, Fletcher J, <b>Mallett A</b> , Bennetts B, Alexander SI. Diagnostic renal gene panel results reflect a higher prevalence of genetic aetiology in childhood onset renal disease. Annual Scientific Meeting of the Australian and New Zealand Society of Nephrology & Asia-Pacific Congress of Nephrology. Perth, Australia. Sept 17-21, 2016.
Oral	McCarthy H, Patel C, Mallawaarachchi A, Ho G, Holman K, <b>Mallett A</b> , Bennetts B, Alexander SI. Sequencing the genes associated with congenital anomaly of the kidney and urinary tract rarely reveals a genetic aetiology. Annual Scientific Meeting of the Australian and New Zealand Society of Nephrology & Asia-Pacific Congress of Nephrology. Perth, Australia. Sept 17-21, 2016.
Oral	McCarthy H, Patel C, Mallawaarachchi A, Ho G, Holman K, <b>Mallett A</b> , Bennetts B, Durkan A, Mackie F, Kennedy S, Alexander SO. Comparison of phenotype associated with HNF1B mutations in a paediatric vs adult cohort. Annual Scientific Meeting of the Australian and New Zealand Society of Nephrology & Asia-Pacific Congress of Nephrology. Perth, Australia. Sept 17-21, 2016.
Oral	<b>McIntyre D</b> , Havas K, <b>Bonner A</b> . How frequent is frequent? Monitoring for intradialytic hypotension. Renal Society of Australasia, 44th annual conference. Gold Coast, June 2016
Poster	<b>McIntyre D</b> , Havas K, <b>Bonner A</b> . Intradialytic hypotension: Is it all a matter of timing? European Dialysis and Transplant Nurses Association/European Renal Care Association, 45th international conference. Valencia, Spain, September 2016
Oral	<b>McIntyre D</b> , <b>Rice R</b> , <b>Jakeman K</b> , <b>Lorenzen N</b> . Monthly blood/patient reviews: A focused team based approach. European Dialysis and Transplant Nurses Association/European Renal Care Association, 45th international conference. Valencia, Spain, September 2016
Poster	Nguyen N, <b>Bonner A</b> , Douglas C. Kidney knowledge survey: A validation study in Vietnamese language. Renal Society of Australasia, 44th annual conference. Gold Coast, June 2016
Poster	Nguyen N, <b>Bonner A</b> , Douglas C. Chronic kidney disease self-Management: A validation study in Vietnamese language. Renal Society of Australasia, 44th annual conference. Gold Coast, June 2016
Poster	<b>Rawlings C</b> , Cameron A, Wang Z, <b>Mallett A</b> , <b>Healy H</b> , Hoy W. Timing of renal supportive care decisions in advanced chronic kidney disease: effect on hospitalisations and place of death. Annual Scientific Meeting of the Australian and New Zealand Society of Nephrology & Asia-Pacific Congress of Nephrology. Perth, Australia. Sept 17-21, 2016.
Poster	<b>Rawlings C</b> , Cameron A, Wang Z, <b>Mallett A</b> , <b>Healy H</b> , Hoy W. Timing of renal supportive care decisions in advanced chronic kidney disease: effect on hospitalisations and place of death. Annual Scientific Meeting of the Australian and New Zealand Society of Nephrology & Asia-Pacific Congress of Nephrology. Perth, Australia. Sept 17-21, 2016.
Poster	<b>Rice R</b> , <b>Jakeman K</b> , <b>Lorenzen N</b> , <b>McIntyre D</b> . Team tactics: A co-ordinated approach to care management. Renal Society of Australasia, 44th annual conference. Gold Coast, June 2016
Poster	<b>Rist M</b> , Wang X, Wilkinson R, <b>Kassianos A</b> , <b>Healy H</b> . Human proximal tubule epithelial cell (PTEC) dysfunction under hypoxic conditions. RBWH Healthcare Symposium. Brisbane, Australia. Sept 12-16, 2016.
Oral	Ross L, Chong SH, Mason B, <b>Healy H</b> . A short questionnaire for screening sodium intakes – a first step to effective blood pressure management. Paper presented at: 17th International Congress of Dietetics; 2016 September 7-10 September 2016; Granada, Spain.
Oral	<b>Scuderi C</b> , <b>Healy H</b> , <b>Berquier I</b> , <b>Douglas C</b> . FED-EX-KSCp. Facilitating End of Life Discussions. EXiting invasive care. Pharmacy in the Kidney Supportive Care program. (KSCp). Paper presented at: Society of Hospital Pharmacists of Australia Medicines Management Conference; 2016 November 16-19; Perth, Australia.
Oral	<b>Scuderi C</b> , <b>Jacks M</b> , <b>Owens J</b> , <b>John G</b> , <b>Healy H</b> . Reflections on a new transplant pharmacy service 12 months on. Renal Society of Australasia, 44th annual conference. Gold Coast, June 2016
Oral	<b>Taylor B</b> , Donaldson S, <b>Kark A</b> , <b>Munsie S</b> , <b>Hale J</b> , <b>Healy H</b> . Establishment of a public/private partnership conjoint chronic kidney team and endocrine clinic. Paper presented at: 12th Australian Disease Management Association Annual National Conference; 2016 October 20-21; Melbourne, Australia
Poster	<b>Taylor B</b> , Donaldson S, <b>Kark A</b> , <b>Munsie S</b> , <b>Hale J</b> , <b>Healy H</b> . Establishment of a public/private partnership co-joint chronic kidney team and endocrine clinic. Statewide Cardiac, Diabetes and Renal Clinical Networks Combined Forum. Brisbane, June 2016



Type (Oral / Poster / Invited)	Presentation information (RBWH staff in bold)
Poster	<b>Usman M</b> , Hoy WE, <b>Healy HG</b> , <b>Mallett AJ</b> , <b>Kark AL</b> , Cameron A, Wang Z, <b>Abeysekera A</b> . In: Journal of the American Society of Nephrology Supplement 2016;27;832A abstract 5178. Poster presented at: Kidney Week American Society of Nephrology; 2016 November 15-20; Chicago, US. (poster SA-PO866).
Poster	Wang X, <b>Kassianos A</b> , <b>Kildey K</b> , Potriquet J, Lobb R, Cloonan N, Wilkinson R, Healy H. Molecular profiling of exosomes derived from human proximal tubule epithelial cells (PTEC) under normal and diseased conditions. RBWH Healthcare Symposium. Brisbane, Australia. Sept 12-16, 2016.
Oral	Wang X, Kassianos A, Potriquet J, Lobb R, Cloonan N, Wilkinson R, Healy H. miRNA expression within exosomes derived from human proximal tubule epithelial cells (PTEC) under normal and diseased conditions. Annual Scientific Meeting of the Australian and New Zealand Society of Nephrology. Perth, Australia. Sept 17-21, 2016.
Poster	Wang Z, Zhang J, Healy H, Tan K, Venuthurupalli S, Cameron A, Hoy W. Characteristics of CKD.Qld patients by index of relative socio-economic disadvantage (IRSD). In: Nephrology 2016; 21(S2):209. Poster presented at: 15th Asian Pacific Congress of Nephrology & 51st Annual Scientific Meeting Australian and New Zealand Society of Nephrology; 2016 September 17-21; Perth, Australia
Poster	Wang Z, Zhang J, Healy H, Tan K, Venuthurupalli S, Cameron A, Hoy W. Risk factors of starting renal replacement therapy and mortality in CKD.Qld patients. In: Nephrology 2016; 21(S2):209. Poster presented at: 15th Asian Pacific Congress of Nephrology & 51st Annual Scientific Meeting Australian and New Zealand Society of Nephrology; 2016 September 17-21; Perth, Australia
Oral	Wembenyui C, Bonner A, Douglas C. Examining patient's knowledge about chronic kidney disease in a Primary Health Care setting. Renal Society of Australasia, 44th annual conference. Gold Coast, June 2016
Poster	Wembenyui C, Bonner A, Douglas C. Gauging the level of chronic kidney disease self-management behaviours of patients in a General Practice. Renal Society of Australasia, 44th annual conference. Gold Coast, June 2016
Oral	Wilkinson R, Wang X, Kassianos A, Kildey K, Potriquet J, Lobb R, Cloonan N, Healy H. Molecular profiling of exosomes derived from human proximal tubule epithelial cells (PTEC) under normal and diseased conditions. Translational Medicine: the Role of the Kidney. Blenheim, NZ. December 2-3, 2016.
Poster	Wilson G, Mallett A, Kark A, Tan K, Abeysekera R, Wang Z, Healy H, Hoy W. The relationship between cancer and acute tubular necrosis in patients with chronic kidney disease. American Society of Nephrology: Kidney Week. Chicago, USA. November 15-20, 2016. Annual Scientific Meeting of the Australian and New Zealand Society of Nephrology & Asia-Pacific Congress of Nephrology. Perth, Australia. Sept 17-21, 2016.
Poster	Wilson G, Mallett A, Kark A, Tan K, Cameron A, Wang Z, Healy H, Hoy W. The prevalence and characteristics of acute interstitial nephritis and pyelonephritis in patients with CKD. Annual Scientific Meeting of the Australian and New Zealand Society of Nephrology & Asia-Pacific Congress of Nephrology. Perth, Australia. Sept 17-21, 2016.
Poster	Zhang J, Wang Z, Healy H, Venuthurupalli S, Tan K, Fassett R, Cameron A, Hoy W. Profiles and outcomes of patients with chronic kidney disease in the public renal practice system, Queensland Australia. Nephrology 2016;21(S2):208. Poster presented at: 15 <sup>th</sup> Asian Pacific Congress of Nephrology & 51st Annual Scientific Meeting Australian and New Zealand Society of Nephrology; 2016 September 17-21; Perth, Australia

## Other communications and outputs:

Dr Andrew Mallett - Co-Convenor, Organising Committee and Speaker, 4th Australian Renal Genetics Symposium, Melbourne Australia.

Dr Andrew Mallett – Invited Speaker, 1st AGHA Functional Genomics Workshop, Melbourne Australia.

## Research Publications / Presentations Summary Table

Research Group / Department	Publications		Presentations National and International	
	Journal Articles	Books and Chapters	Oral	Poster
<b>Kidney Health Service</b>	13	0	37 (6 invited)	32

## Neurology – Motor Neurone Disease Research

The Motor Neurone Disease (MND) research team is led by Associate Professor Rob Henderson and Professor Pam McCombe. The team involves neurologists, scientists, University of Qld (UQ), PhD students, a neuropsychologist and research coordinators. The team has links to the University of Qld, University of NSW and the Royal Prince Alfred Hospital and also collaborates with international MND researchers.

MND research includes involvement in clinical pharmaceutical trials, including a current study investigating efficacy of a new compound to treat cramps and spasticity in motor neurone disease. The neurologists have also provided input into upcoming early phase studies for investigational products aimed to treat neuro-inflammatory aspects of Motor Neurone Disease. The research coordinators have been involved in the set-up phase for one of these studies projected to commence mid 2017.

MND participants are recruited via the bi-monthly MND Clinic or via referral from external Neurologists. A regular MND Research Clinic is conducted to allow interested patients and families to meet all the researchers and discuss current research projects prior to deciding whether they wish to participate.

Neuropsychological research is conducted by the team neuropsychologist and a PhD student investigating cognitive and behavioural changes in MND patients. Another project investigates the role of metabolism in MND and has found a proportion of patients experience hypermetabolism. The study has expanded to include collection and analysis of gut biomes and more extensive dietary history.

There remains a lack of reliable diagnostic and prognostic biomarkers for the disease. Several of the research projects aim to find novel biomarkers for the disease. This includes blood collection sent to UQ laboratories for genetic screening / biomarker studies, MRI sequencing via 7T MRI located at UQ and correlation of median and ulnar nerve conduction testing with a device measuring the pinch strength of the patient, to see if the device could be useful clinically.

Research funding from the national Ice Bucket challenge commenced 2016 and is guaranteed over the next 3 years to fund increased research coordinator hours to implement a new national motor neurone disease database system known as SALSA. All new and existing patients participating in research are entered onto the new database. The team is also involved in regular fund raising events throughout the year including a Golf Day and an MND lunch event. Money for the MND research is held within the Royal Brisbane and Women's Hospital Foundation.

### Supervised Post-graduate Research Students

Name (RBWH staff in bold)	Current Studies (e.g. PhD, Masters etc.)University (duration)	Research Project Title	Supervisors (RBWH staff in bold)
Zara Ioannides	PhD, UQ (2015-2018)	Energy metabolism and lipid storage in motor neurone disease (MND)	Rob Henderson
Zhouwei Xu	PhD, UQ (2014 – 2017)	Cognitive dysfunction in motor neurone disease	Pam McCombe, Rob Henderson, Shyuan Ngo, Frederik Steyn, Aven Lee

### Current Research Group / Department Led Research Activity

Research Group / Department Lead Researchers	Collaborative Researchers	Research Project Title
<b>Rosemary Argall, Amelia Ceslis</b>	<b>Rob Henderson, Pam McCombe,</b> Gail Robinson (UQ)	Assessment of cognition and behaviour in Motor Neurone Disease in a clinical setting and the impact of education sessions on care giver well-being
<b>Rob Henderson, Pam McCombe</b>	Shyuan Ngo (UQ)	Assessment of biomarkers in Motor Neurone Disease (MND)

Research Group / Department Lead Researchers	Collaborative Researchers	Research Project Title
<b>Rob Henderson</b>	<b>John O'Sullivan, Anna Farrell (Speech Therapy)</b>	Botulinum Toxin for Sialorrhoea in Amyotrophic Lateral Sclerosis – Does Ultrasound Guidance and Submandibular Infaction Improve Outcomes?
<b>Rob Henderson, Pam McCombe</b>	Stephen Rose (UQCCR), <b>Alan Coulthard (DMI)</b>	Measuring disease of upper and lower motor neurones in amyotrophic Lateral Sclerosis (ALS)
<b>Rob Henderson</b> (feasibility, protocol review and ethics submission activities)	<b>Pam McCombe</b>	A Phase 1b, Open-Label, Dose-Escalation, Safety and Pharmacokinetic Study of IC14 in Motor Neurone Disease

## Collaborative Research Activity

Collaborative Lead Researchers (RBWH staff in bold)	Your Research Group / Department Researchers	Research Project Title
Zara Ioannides (UQ), Shyuan Ngo (UQ), Frederik Steyn (UQ)	<b>Rob Henderson, Pam McCombe</b>	Energy metabolism and Lipid storage in motor neurone disease (MND)
Christine Gui (UQ), Gail Robinson (UQ)	Michael Breakspear (UQ), <b>Rob Henderson, Rosemary Argall, Amelia Ceslis</b>	Neurobiology-informed diagnostic toolkit for neurodegenerative diseases
Matthew Kiernan (UNSW)	<b>Rob Henderson, Pam McCombe</b> , Susan Mathers, Dominic Rowe	A Randomised, Cross-over Study to Evaluate Efficacy and Tolerability of FLX-787 in Patients with Motor Neurone Disease
Peter Noakes (UQ)	<b>Rob Henderson</b>	Abnormalities of muscle and neuromuscular junction in motor neurone disease (MND)

## Research Awards and Achievements

Recipient	Award	Event
Dr Shyuan Ngo / Dr Frederik Steyn	Jenny and Graham Lang Collaboration Award	Motor Neurone Disease Research Institute of Australia (MNDRIA)

## Research Grants – Awarded

Investigators (RBWH staff in bold)	RBWH Research Groups / Departments	Project Title	Granting Body	Total Amount (years)
Ngo, <b>McCombe, Henderson</b> , Steyn	MND Research Group		Wesley Medical Research Clinical Neurology Research Grant	\$350,000 (2016 -
Ngo <b>McCombe, Henderson</b> , Steyn	MND Research Group	Bioenergetic deficit in neurodegeneration: studies in motor neurone disease	NHMRC	\$300,000 (2016 -
Guillemin, Rowe, Blair, Atkin, Lim, Lovejoy, Oytam, Brew, Rodgers, Rogers, <b>McCombe, Henderson</b> , Woodruff, Ngo.	MND Research Group		MNDRIA Cure for MND Research Grant	
Steyn, <b>McCombe, Henderson</b> , Ngo.	MND Research Group		MNDRIA Cunningham Family MND Research Grant	
Bellingham, Coulson, Noakes, Millard, Scott, <b>Ngo</b> , Hilliard, Von Swinderen.	MND Research Group		UQ Major Equipment and Infrastructure Grant	
<b>Ngo S</b>	MND Research Group		Australian Institute of Policy and Science (AIPS) Queensland Young Tall Poppy Award.	

Investigators (RBWH staff in bold)	RBWH Research Groups / Departments	Project Title	Granting Body	Total Amount (years)
<b>Ngo S</b>	MND Research Group		The CASS Foundation Postdoctoral Early Career Researcher Travel Grant	
<b>Ngo S</b>	MND Research Group		World Science Festival Queensland Women in STEM Research Prize – People's Choice Award.	
<b>Ngo S</b>	MND Research Group		World Science Festival Queensland Women in STEM Research Prize – Jury Award	

## 2016 Research Publications

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal Article	Fogarty, M.J., Klenowski, P.M., Lee, J.D., Driberg-Thompson, J.R., Bartlett, S.E., <b>Ngo, S.T.</b> , Hilliard, M.A., Bellingham, M.C., and Noakes, P.G. 2016. Cortical synaptic and dendritic spine abnormalities in a presymptomatic TDP-43 model of amyotrophic lateral sclerosis. <i>Scientific Reports</i> . 6:37968.
Journal Article	Li, R., <b>Steyn, F.J.</b> , Stout, M.B., Lee, K., Cully, T.R., Calderon, J.C., and <b>Ngo, S.T.</b> 2016. Development of a high-throughput method for real-time assessment of cellular metabolism in intact long skeletal muscle fibre bundles. <i>The Journal of Physiology</i> . 594(24):7197-7213.
Journal Article	Carrasco-Pozo, C., Tan, K-N., Reyes-Fairias, M., de la Jara, N., <b>Ngo, S.T.</b> , Garcia, D., Llanos, P., and Borges, K. 2016. The deleterious effect of cholesterol and protection by quercetin on mitochondrial bioenergetics of pancreatic $\beta$ -cells, glycemic control and inflammation: in vitro and in vivo studies. <i>Redox Biology</i> . 26 (9): 229-243.
Journal Article	Tefera, T., Wong, Y., <b>Ngo, S.T.</b> , Thomas, N., McDonald, T., and Borges, K. 2016. Triheptanoin Protects Motor Neurons and Delays the Onset of Motor Symptoms in a Mouse Model of Amyotrophic Lateral Sclerosis. <i>Plos One</i> . 11 (8): e0161816.
Journal Article	Ioannides, Z.A. Ngo, S.T., <b>Henderson, R.D.</b> , <b>McCombe, P.A.</b> , and Steyn, F.J. 2016. Altered metabolic homeostasis in Amyotrophic Lateral Sclerosis: Mechanisms of energy imbalance and contribution to disease progression. <i>Neurodegenerative Diseases</i> . 16 (5-6):382-397.
Journal Article	Tuong ZK, Fitzsimmons R, Wang SM, Oh TG, Lau P, <b>Steyn FJ</b> , Thomas G, Muscat GE. Transgenic Adipose-specific Expression of the Nuclear Receptor RORalpha Drives a Striking Shift in Fat Distribution and Impairs Glycemic Control. <i>EBioMedicine</i> . 2016;11:101-117.
Journal Article	Tan HY, <b>Steyn FJ</b> , Huang L, Cowley M, Veldhuis JD, Chen C. Hyperphagia in male melanocortin 4 receptor deficient mice promotes growth independently of growth hormone. <i>J Physiol</i> . 2016;594(24):7309-7326.
Journal Article	<b>Steyn FJ</b> , Tolle V, Chen C, Epelbaum J. Neuroendocrine Regulation of Growth Hormone Secretion. <i>Compr Physiol</i> . 2016;6(2): 687-735
Journal Article	Nabizadeh JA, Manthey HD, <b>Steyn FJ</b> , Chen W, Widiapradja A, Md Akhir FN, Boyle GM, Taylor SM, Woodruff TM, Rolfe BE. The Complement C3a Receptor Contributes to Melanoma Tumorigenesis by Inhibiting Neutrophil and CD4+ T Cell Responses. <i>J Immunol</i> . 2016;196(11):4783-4792.
Journal Article	Li R, <b>Steyn FJ</b> , Stout MB, Lee K, Cully TR, Calderon JC, Ngo ST. Development of a high-throughput method for real-time assessment of cellular metabolism in intact long skeletal muscle fibre bundles. <i>J Physiol</i> . 2016;594(24):7197-7213.
Journal Article	Ioannides ZA, Ngo ST, <b>Henderson RD</b> , <b>McCombe PA</b> , #Steyn FJ. Altered Metabolic Homeostasis in Amyotrophic Lateral Sclerosis: Mechanisms of Energy Imbalance and Contribution to Disease Progression. <i>Neurodegener Dis</i> . 2016;16(5-6):382-397.
Journal Article	Czieselsky K, Prescott M, Porteous R, Campos P, Clarkson J, <b>Steyn FJ</b> , Campbell RE, Herbison AE. Pulse and Surge Profiles of Luteinizing Hormone Secretion in the Mouse. <i>Endocrinology</i> . 2016;157(12):4794-4802.41.
Journal Article	<b>Steyn, FJ.</b> Growth Hormone Releasing Hormone. In <i>Encyclopedia of Signaling Molecules</i> , 2nd edition. Springer. 2016
Journal Article	Aoun SM, Breen LJ, Oliver D, <b>Henderson RD</b> , Edis R, O'Connor M, Howting D, Harris R, Birks C. Family carers' experiences of receiving the news of a diagnosis of Motor Neurone Disease: A national survey. <i>J Neurol Sci</i> . doi: 10.1016/j.jns.2016.11.043.
Journal Article	Xu Z, <b>Henderson RD</b> , David M, <b>McCombe PA</b> . Neurofilaments as Biomarkers for Amyotrophic Lateral Sclerosis: A Systematic Review and Meta-Analysis. <i>PLoS One</i> . 2016 Oct 12;11(10):e0164625.
Journal Article	Talman P, Duong T, Vucic S, Mathers S, Venkatesh S, <b>Henderson R</b> , Rowe D, Schultz D, Edis R, Needham M, Macdonnell R, McCombe P, Birks C, Kiernan M. Identification and outcomes of clinical phenotypes in amyotrophic lateral sclerosis/motor neuron disease: Australian National Motor Neuron Disease observational cohort. <i>BMJ Open</i> . 2016 30;6(9):e012054.

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal Article	<b>Henderson RD, McCombe PA.</b> Assessment of Motor Units in Neuromuscular Disease. Neurotherapeutics. 2016 Sep 6. Review. doi: 10.1007/s13311-016-0473-z.
Journal Article	O'Callaghan C, <b>Henderson R</b> , Tay G, Masel P. Adult onset Pompe's disease presenting with insidious type 2 respiratory failure. Respirology 2016 Aug 3;4(5):e00178.
Journal Article	Geevasinga N, Menon P, Scherman DB, Simon N, Yiannikas C, <b>Henderson RD</b> , Kiernan MC, Vucic S. Diagnostic criteria in amyotrophic lateral sclerosis: A multicenter prospective study. Neurology. 2016;87(7):684-90.
Journal Article	McNamara JF, Paterson DL, Allworth A, Presneill J, O'Connell P, <b>Henderson RD.</b> Re-activation of varicella zoster virus associated with anterior spinal cord stroke in pregnancy. Infect Dis. 2016 Sep;48(9):705-7.
Journal Article	Aoun S, Breen LJ, Howting D, Edis R, Oliver D, <b>Henderson R</b> , O'Connor M, Harris R, Birks C. Receiving the news of a diagnosis of Motor Neurone Disease: What does it take to make it better? Amyotroph Lateral Scler Frontotemporal Degener 2016;17:168-178.

## 2016 Conference Presentations – Invited Speaker, Oral and Poster

Type (Oral / Poster / Invited)	Presentation information (RBWH staff in bold)
Oral	<b>Ioannides Z.</b> Metabolic dynamics in Motor Neurone Disease: Assessment of energy metabolism in MND patients reveals breakdown in energy supply and demand. Australian and New Zealand Association of Neurologists (ANZAN) ASM, Perth, 2016
Invited Speaker	<b>Ngo S.</b> MND Association of Western Australia Meet the Experts Conference. Perth, Australia
Guest Speaker	<b>Ngo S</b> Motor Neurone Disease, Far north Queensland Support Group Meeting: Multiple System Atrophy & Progressive Supranuclear Palsy
Invited Speaker	<b>Ngo S.</b> International Conference on Physiological Sciences (ICPS). Beijing, China
Invited Speaker	<b>Steyn F.</b> Australian and New Zealand Association of Neurologists (ANZAN) ASM, Perth: Re-evaluation of hypermetabolism and the assessment of endogenous adipose as a modifier of ALS progression
Invited Speaker	<b>Ngo S, Steyn F.</b> 27th International ALS/MND Symposium. Dublin, Ireland: Impaired glucose clearance as a potential contributing factor for hypermetabolism in ALS patients
Invited Speaker	<b>Ngo S, Steyn F.</b> 27th International ALS/MND Symposium. Dublin, Ireland: Impairment of growth hormone signalling significantly modifies the course of disease in a mouse model of ALS.
Invited Speaker	<b>Steyn F.</b> Joint Scientific Meeting of The Australian and New Zealand Obesity Society (ANZOS), Brisbane: Use of a potent calorie restriction mimetic to selectively recover POMC activity, thereby reversing dietary induced weight gain
Invited Speaker	<b>Steyn F.</b> Sporadic ALS Australian Systems Genomics Consortium (SALSA-SGC) Training Symposium: Assessment of metabolic health in neurodegeneration: studies in motor neurone disease

## Research Publications / Presentations Summary Table

Research Group / Department	Publications		Presentations National and International	
	Journal Articles	Books and Chapters	Oral	Poster
	20	1	9	0



## Neurology – Movement Disorder Group

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The Movement Disorders Group research under A/Prof John O’Sullivan and Dr Robert Adam is currently focussed on Parkinson’s disease and related diseases, Huntington’s disease, and Friedreich’s Ataxia through our dedicated clinics. We have particular research interests in the non-motor aspects of these diseases that have significant impact on patient’s quality of life including anxiety, depression, cognitive changes and sleep disturbances. We are focussed on improved understanding these features to develop better treatments for these diseases.

We have strengthened our longstanding collaborations with the University of Queensland Centre for Clinical Research (UQCCR) through the Neuro Mental Health Group led by Dr Nadeeka Dissanayaka, Honorary Research Fellow in the Department of Neurology RBWH, and past RBWH Foundation Scholarship holder and with psychiatry Professor Gerard Byrne, Director of Geriatric Psychiatry RBWH, and Head of Psychiatry in School of Medicine University of Queensland, and Dr Rodney Marsh, visiting psychiatrist RBWH.

We have also strengthened our collaborations with built on past and through the University of Queensland (UQ) School of Biomedical Neuroinflammation group led by Associate Professor Trent Woodruff, particularly in relation to studies of neuroinflammation in Huntington’s disease and more recently Parkinson’s disease with collaborative research as part of an ongoing NHMRC funded grant *“Complement activation as a therapeutic target and clinical biomarker for Parkinson’s disease.”* Researching common threads between inflammation in Huntington’s and motor neurone diseases has provided the impetus for further collaborative research relating to metabolism and sleep between our group and the motor neurone research group at RBWH led by A/Prof Robert Henderson and Prof Pam McCombe, and with Dr Alex Ritchie from the Department of Thoracic and Sleep Medicine, RBWH.

We have established collaborative links with Wesley Medical Research (WMR) through Dr Susanna Mantovani, the WMR Thorsen Foundation post-doctoral research fellow and Honorary Research Fellow in the Department of Neurology RBWH. Dr Mantovani is studying aspects of sleep in Huntington’s disease and Friedreich’s Ataxia with patients from our clinics. Links between our group and collaborators at UQ led to awards of three successful grants through Wesley Medical Research.

We continue to collaborate with the Friedreich’s Ataxia Clinic in Melbourne and are increasing our capability to conduct clinical trials and related research on Friedreich’s Ataxia patients at both centres. This resulted in a successful NHMRC grant studying the drug resveratrol in Friedreich’s Ataxia across both sites.

## Research Positions: Coordinators, Fellow, Adjunct and Honorary Positions

Name	Type of Fellowship	Research Program	University Affiliation (years)
Nadeeka Dissanayaka	Honorary Research Fellow	Parkinson's disease mental health	UQ (2003-present)
Susanna Mantovani	Honorary Research Fellow	Sleep in neurodegenerative disease	UQ (2012-present)

## Current Research Group / Department Led Research Activity

Research Group / Department Lead Researchers	Collaborative Researchers	Research Project Title
John O'Sullivan	<b>Robert Adam, Andre Troiano, Amy Jones, Alan Coulthard</b> , Stephen Rose, Kim Forrest	Combined imaging in the diagnosis of early Corticobasal Syndrome
Susanna Mantovani, John O'Sullivan	Simon Smith, Simon McBride, <b>Alex Ritchie</b>	Analysis of sleep in Friedreich's Ataxia and Huntington's disease patients

## Collaborative Research Activity

Collaborative Lead Researchers (RBWH staff in bold)	Your Research Group / Department Researchers	Research Project Title
Ji Hyun Yang, Nadeeka Dissanayaka	<b>John O'Sullivan, Gerard Byrne</b>	Mild Cognitive Impairment in Parkinson's disease: fMRI study
Anand Padmassini, Nadeeka Dissanayaka (UQ)	<b>John O'Sullivan, Gerard Byrne, Rodney Marsh</b> , Nancy Pachana	Cognitive Behaviour Therapy for Anxiety in Parkinson's disease: Waitlist controlled trial
Trent Woodruff(UQ), Richard Gordon (UQ)	<b>John O'Sullivan</b>	Complement activation as a therapeutic target and clinical biomarker for Parkinson's disease

## Research Grants - Awarded

Investigators (RBWH staff in bold)	RBWH Research Groups / Departments	Project Title	Granting Body	Amount in 2016	Total Amount (years)
Trent Woodruff, <b>John O'Sullivan</b> , Anumantha Kanthasamy	Dept of Neurology	Complement activation as a therapeutic target and clinical biomarker for Parkinson's disease	NHMRC	Funding for RBWH in 2017	\$495,738
Martin Delatycki, <b>John O'Sullivan</b> , Paul Lockhart, Eppie Yiu, George Wilmot	Dept of Neurology	A randomised placebo-controlled crossover trial of micronised resveratrol as a treatment for Friedreich's ataxia	NHMRC	Funding for RBWH in 2017	\$556,287 (2016-2018)
Nadeeka Dissanayaka, <b>John O'Sullivan, Gerard Byrne, Rodney Marsh</b> , Nancy Pachana	Dept of Neurology Dept of Psychiatry	Cognitive behaviour therapy for anxiety in Parkinson's disease: Outcomes for patients and caregivers	RBWH Foundation	\$44,000	\$44,000
<b>John O'Sullivan</b> , Susanna Mantovani, <b>Robert Adam, Robert Henderson, Pam McCombe, Alex Ritchie</b>	Dept of Neurology Dept of Thoracic and Sleep Medicine	Sleep and circadian patterns in Motor neurone disease (MND) and Parkinson's disease (PD)	Wesley Medical Research	Funding from 2017	\$747,919 (2016-2019)
Jane Nikles, <b>John O'Sullivan</b> , Geoff Mitchell, <b>S Mantovani, A Ritchie</b> , Simon Smith, James McGree, Hugh Senior	Dept of Neurology Dept of Thoracic and Sleep Medicine	Using N-of-1 tests to identify responders to melatonin for sleep disturbance in Parkinson's Disease	Wesley Medical Research	Funding from 2017	\$244,026 (2016-2019)

Investigators (RBWH staff in bold)	RBWH Research Groups / Departments	Project Title	Granting Body	Amount in 2016	Total Amount (years)
Sandra Brauer, B Robyn Lamont, Jane Nielson	Dept of Neurology	A physiotherapy exercise program with a self-management approach to improve physical activity in people with mild-moderate Parkinson's disease: A RCT	Wesley Medical Research	Funding from 2017	\$247,922

## 2016 Research Publications

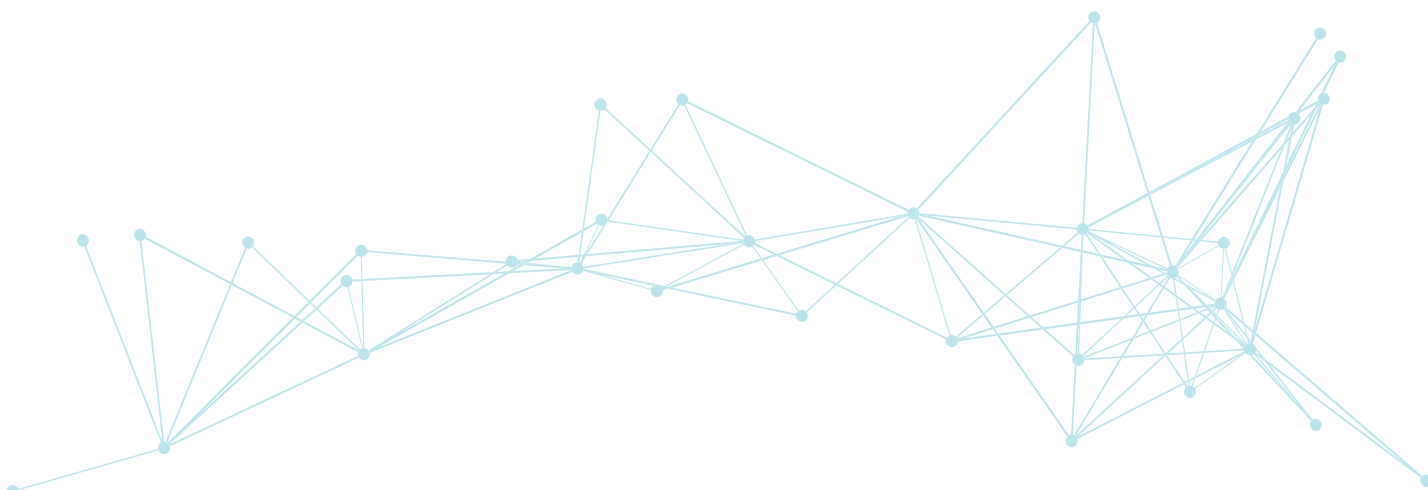
Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal Article	Zhang S, Dissanayaka NN, Dawson A, <b>O'Sullivan, JD, Mosley P</b> , Hall W & Carter A. Management of Impulse Control Disorders in Parkinson's Disease Int Psychogeriatr. 2016;10:1597-614
Journal Article	Dissanayaka NN, Idu Jion F, Pachana NA, <b>O'Sullivan JD, Marsh R, Byrne GJ</b> , Harnett P. Mindfulness for Motor and Nonmotor Dysfunctions in Parkinson's Disease. Parkinsons Dis. 2016;2016:7109052.
Journal Article	Dissanayaka NN, O'Sullivan JD, Pachana NA, <b>Marsh R</b> , Silburn PA, White EX, Torbey E, Mellick GD, Copland DA, Byrne GJ. Disease-specific anxiety symptomatology in Parkinson's disease. Int Psychogeriatr. 2016 Jul;28(7):1153-63
Journal Article	Yin YWK, Chang FCF, Mahant N, Fung VSC, Tsui D, Aldaajani Z, <b>Adam R</b> , Hely M. Antecollis associated with Parkinson's disease improved following apomorphine therapy Clinical Neurophysiology , 2016; 127 :e10 - e11

## 2016 Conference Presentations – Invited Speaker, Oral and Poster

Type (Oral / Poster / Invited)	Presentation information (RBWH staff in bold)
Oral	Dissanayaka NN, Pachana NA, <b>O'Sullivan JD, Marsh R</b> , Silburn PA, White EX, Torbey E, Pye E, Mitchell LK, Copland DA <b>Byrne GJ</b> , Improving diagnosis and treatment of anxiety in Parkinson's disease: IDAT-PD Study. Australian New Zealand Association of Neurologists Annual Scientific Meeting, Perth May 2016

## Research Publications / Presentations Summary Table

Research Group / Department	Publications		Presentations National and International	
	Journal Articles	Books and Chapters	Oral	Poster
	4	0	1	0





## Neurology – Stroke

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The RBWH Stroke team has continued to take a leadership role for Queensland in participating in international multicentre stroke research. Our team is involved in emergency trials assessing treatments that may reverse the effects of a stroke before permanent damage is done and trials of treatments that may prevent second or subsequent strokes.

We have also continued to contribute to the facilitation of recruitment and conduct of numerous investigator-led and university-sponsored research projects in 2016. This included studies assessing acute triage and treatment of stroke patients (T3), investigation of post-discharge support for stroke patients (MiStrEnGTH) and a study assessing better access for rehabilitation for stroke patients (BEEPRS). These studies involve cross-divisional cooperation and we are glad to be able to facilitate these studies.

Our group was also successful in obtaining RBWH and RBWH Foundation funding to further assess the role of EEG in the identification of stroke and stroke subtypes in the pre-hospital setting, which will be the subject of ongoing study in 2017 and beyond.

Our thanks to the RBWH Foundation for their ongoing support of research at RBWH and within the Stroke team, and for their ongoing organisation and support of the fundraising activities that help finance our research program, especially the Master Stroke Business Luncheon.



## Supervised Post-graduate Research Students

Name (RBWH staff in bold)	Current Studies (e.g. PhD, Masters etc.)University (duration)	Research Project Title	Supervisors (RBWH staff in bold)
Emma Schleiger	PhD (2012-2016)	Role of quantitative EEG in diagnosis, prognostication and management of acute stroke	Simon Finnigan, <b>Andrew Wong</b>

## Current Research Group / Department Led Research Activity

Research Group / Department Lead Researchers	Collaborative Researchers	Research Project Title
Andrew Wong	Geoffrey Donnan (The Florey Institute of Neuroscience and Mental Health) Stephen Davis (Royal Melbourne Hospital)	A randomised, multicentre, double blinded, placebo controlled phase 3 trial in ischaemic stroke patients with significant penumbral mismatch at 4.5 – 9 hours post onset of stroke or after 'wake up' stroke comparing intravenous tPA with placebo
Andrew Wong	Mark Parsons (John Hunter Hospital)	A multicentre, prospective, randomised open-label blinded endpoint phase III study in stroke thrombolysis patients to compare tenecteplase and alteplase for an outcome of less disability at three months
Andrew Wong	Bruce Campbell (Royal Melbourne Hospital) Peter Mitchell (Royal Melbourne Hospital)	A randomized controlled trial of tenecteplase versus alteplase before intra-arterial reperfusion therapy within 4.5 hours of stroke onset utilizing dual target imaging selection
Andrew Wong	Han-Christoph Diener (Germany)	A multicentre, randomized, double-blind, evaluation in secondary stroke prevention comparing the efficacy and safety of the oral thrombin inhibitor dabigatran etexilate versus acetylsalicylic acid in patients with embolic stroke of undetermined source
Andrew Wong	Robert Hart (Canada)	A multicentre, randomized, double-blind, double-dummy, active-comparator, event-driven, superiority phase III study of secondary prevention of stroke and prevention of systemic embolism in patients with a recent embolic stroke of undetermined source, comparing rivaroxaban with aspirin
Andrew Wong	C. de Bodinat (France)	An international, multi-centre, randomized, double-blind placebo-controlled phase II study, assessing the efficacy and safety of S44819 versus placebo in ischemic stroke recovery
Andrew Wong	Sandy Middleton (St Vincent's and Mater Health Sydney; Australian Catholic University)	T3 Trial: triage, treatment, and transfer of patients with stroke in the emergency department

## Collaborative Research Activity

Collaborative Lead Researchers (RBWH staff in bold)	Your Research Group / Department Researchers	Research Project Title
Emma Schleiger (UQ)	Andrew Wong (Stroke Unit)	Role of quantitative EEG in diagnosis, prognostication and management of acute stroke
Gail Robinson (UQ)	Andrew Wong (Stroke Unit)	Cognitive functions and neural correlates
David Copland (UQ)	Andrew Wong (Stroke Unit)	Predicting and promoting sub-acute aphasia recovery
Petrea Cornwell (Griffith University)	Andrew Wong (Stroke Unit)	Improving the recovery outcomes for people with mild stroke: enhancing and guiding transition home



## Research Grants – Awarded

Investigators (RBWH staff in bold)	RBWH Research Groups / Departments	Project Title	Granting Body	Amount in 2016	Total Amount (years)
Dr Andrew Wong, Dr Simon Finnigan, Wayne Loudon, Dr Stephen Read, Prof Vivienne Tippett	Stroke	Improving pre-hospital screening for stroke treatment eligibility: The value of EEG brain monitoring	RBWH and RBWH Foundation	\$39 840	\$39 840 (2017)

## 2016 Research Publications

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal Article	Cadilhac, D. A., Kim, J., Lannin, N. A., Levi, C. R., Dewey, H. M., Hill, K., . <b>Wong,A.</b> . Grimley, R. (2016). Better outcomes for hospitalized patients with TIA when in stroke units An observational study. <i>Neurology</i> , 86(22), 2042-2048.
Journal Article	Fanning, J. P., Wesley, A. J., Walters, D. L., Eeles, E. M., Barnett, A. G., Platts, D. G., . <b>Wong,A.</b> . Fraser, J. F. (2016). Neurological Injury in Intermediate-Risk Transcatheter Aortic Valve Implantation. <i>J Am Heart Assoc</i> , 5(11). doi:10.1161/JAHA.116.004203
Journal Article	Finnigan, S., <b>Wong, A., &amp; Read, S.</b> (2016). Defining abnormal slow EEG activity in acute ischaemic stroke: Delta/alpha ratio as an optimal QEEG index. <i>Clinical Neurophysiology</i> , 127(2), 1452-1459.
Journal Article	Schleiger, E., <b>Wong, A., Read, S.,</b> Coulthard, A., & Finnigan, S. (2016). Improved cerebral pathophysiology immediately following thrombectomy in acute ischaemic stroke: Monitoring via quantitative EEG. <i>Clin Neurophysiol</i> , 127(8), 2832-2833. doi:10.1016/j.clinph.2016.06.001
Journal Article	Schleiger, E., <b>Wong, A., Read, S.,</b> Coulthard, A., & Finnigan, S. (2016). Resolution of cerebral pathophysiology immediately following thrombectomy in acute ischaemic stroke: Monitoring via quantitative EEG. <i>Clinical Neurophysiology</i> .

## 2016 Conference Presentations – Invited Speaker, Oral and Poster

Type (Oral / Poster / Invited)	Presentation information (RBWH staff in bold)
Oral / Invited	<b>Wong,A</b> Endovascular Clot Retrieval in Qld, Asia Pacific Stroke Conference/Stroke Society of Australasia ASM, Brisbane July 2016

## Research Publications / Presentations Summary Table

Research Group / Department	Publications		Presentations National and International	
	Journal Articles	Books and Chapters	Oral	Poster
Stroke	5	0	1	0

## Nuclear Medicine / Specialised PET Services QLD

The Department of Nuclear Medicine at the Royal Brisbane and Women's Hospital (RBWH) is one of the largest 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 state-wide Specialised PET Services Queensland, which operates two state-of-the-art PET/CT scanners and a TGA accredited radio laboratory operating a cyclotron. It offers research facilities to a wide variety of investigators. In addition to conventional tracers such as fluorodeoxyglucose (18FDG), the Service also conducts research using 18FDOPA, 18FMISO and 68Ga-DOTATATE and 68Ga-PSMA. 68Ga-Pentixafor is currently being used in animal studies, allowing for 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.

### Supervised Post-graduate Research Students

Name (RBWH staff in bold)	Current Studies (e.g. PhD, Masters etc.)University (duration)	Research Project Title	Supervisors (RBWH staff in bold)
Areej Alosaimi	Masters, QUT (2016)	Beyond NEMA for Modern SPECT	<b>Dr Jye Smith</b>
Shaun Patford	Masters, QUT (2016)	Development of radiation doped resins for imaging phantoms	<b>Dr Jye Smith</b>
Ashley Gillman	PhD, UQ (2015-current)	Motion correction of PET for clinical and research imaging	Dr Nicholas Dowson, Prof Stephen Rose, <b>Dr Jye Smith</b>

### Research Positions: Coordinators, Fellow, Adjunct and Honorary Positions

Name	Type of Fellowship	Research Program	University Affiliation (years)
<b>Dr Jye Smith</b>	Adjunct lecturer	School of Medicine	UQ (2009-current)

### Research Grants – Awarded

Investigators (RBWH staff in bold)	RBWH Research Groups / Departments	Project Title	Granting Body	Total Amount (years)
Nick Weber, A/Prof Glen Kennedy, Dr Kirk Morris, <b>A/Prof Paul Thomas.</b>	Department of Nuclear Medicine / Herston Imaging Research Facility (HIRF)	Pilot Study of 68 GA-Pentixafor PET imaging in multiple myeloma.	Metro North HIRF Seed Funding	(2016)
A/Prof Liz Kenny, Charles Lin, Ben Chua, Brett Hughes, <b>A/Prof Paul Thomas, Dr Manoj Bhatt, Melissa Latter</b> , Sarju Vasani, Dr Martin Batstone, Dr Julie Agnew, Dr Andrew Groundwater, Touraj Taheri, Nicholas Dowson, Stephen Rose, Elizabeth Ahern, Andreas Moller, Rajiv Khama, Chamindie Punyadeera, Sandro Porceddu.	Department of Nuclear Medicine / HIRF	CXCR4 PET for nodal staging of resectable mucosal head and neck Squamous cell carcinoma (HNSCC).	Metro North HIRF Seed Funding	(2016)
A/Prof Liz Kenny, Dr Charles Lin, Dr Ben Chua, Brett Hughes, <b>A/Prof Paul Thomas, Dr Manoj Bhatt, Melissa Latter</b> , Sarju Vasani, Dr Martin Batstone, Dr Julie Agnew, Dr Andrew Groundwater, Touraj Taheri, Nicholas Dowson, Stephen Rose, Elizabeth Ahern, Andreas Moller, Rajiv Khama, Chamindie Punyadeera, Sandro Porceddu.	Department of Nuclear Medicine / HIRF	Hypoxia imparts radiation resistance and when identified, may lend itself to alteration of standard care to improve cure.	Metro North HIRF Seed Funding	(2016)

Investigators (RBWH staff in bold)	RBWH Research Groups / Departments	Project Title	Granting Body	Total Amount (years)
A/Prof Liz Kenny, Dr Charles Lin, Dr Ben Chua, Dr Brett Hughes, <b>A/Prof Paul Thomas, Dr Manoj Bhatt, Melissa Latter</b> , Sarju Vasani, Dr Martin Batstone, Dr Julie Agnew, Dr Andrew Groundwater, Touraj Taheri, Nicholas Dowson, Stephen Rose, Elizabeth Ahern, Andreas Moller, Rajiv Khama, Chamindie Punyadeera, Sandro Porceddu.	Department of Nuclear Medicine / HIRF	Added value of PET/MR compared with PET/CT in head and neck squamous cell cancer staging.	Metro North HIRF Seed Funding	(2016)
Prof. Sunil Lakhani, Prof. Owen Ung, Stephen Rose, <b>A/Prof Paul Thomas</b> , Kowis Murugappan, Ben Green, Liz Kenny, Po Inglis, Lindy Jeffrey, Melissa Brown, Georgia Chenevix-Trench, Kum Kum Khanna, Greg Monteith, Marina Reeves, Peter simpson, Amy McCart Reed, Jodi Saunus, Fares Al-Ejeh, Rik Thompson.	Department of Nuclear Medicine / HIRF	Improving the precision of clinical staging of the axilla.	Metro North HIRF Seed Funding	(2016)
Prof. Sunil Lakhani, Prof Owen Ung, Stephen Rose, <b>A/Prof Paul Thomas</b> , Kowis Murugappan, Ben Green, Liz Kenny, Po Inglis, Lindy Jeffrey, Melissa Brown, Georgia Chenevix-Trench, Kum Kum Khanna, Greg Monteith, Marina Reeves, Peter simpson, Amy McCart Reed, Jodi Saunus, Fares Al-Ejeh, Rik Thompson.	Department of Nuclear Medicine / HIRF	Development of theranostic approach to treatment of brain metastases.	Metro North HIRF Seed Funding	(2016)
Ben Chua, Bryan Day, Stephen Rose, <b>A/Prof Paul Thomas</b> , Rosalind Jeffrey, Yi Chieh Lim, Po Inglis, Zarnie Lwin, Jacqui Keller.	Department of Nuclear Medicine / HIRF	Hypoxia imaging in glioma with PET/MR.	Metro North HIRF Seed Funding	(2016)
David Fielding, <b>A/Prof Paul Thomas</b> , Jason Dowling, Nicholas Dowson, Ashley Gillman, Stephen Rose	Department of Nuclear Medicine / HIRF	Improving the quality of PET imaging of pulmonary nodules and lymph nodes to facilitate invasive and non-invasive assessment.	Metro North HIRF Seed Funding	(2016)
Matthew Burge Melissa Eastgate, David Wyld, A/Prof Paul Thomas, Stephen Rose, Andrew Stevenson	Department of Nuclear Medicine / HIRF	A pilot study of CXCR-4 PET scanning in operable rectal cancer.	Metro North HIRF Seed Funding	(2016)
Matthew Burge, <b>A/Prof Paul Thomas</b> , David Wyld, Nick O'Rourke, Stephen Rose.	Department of Nuclear Medicine / HIRF	Chemokine receptor with a novel PET tracer in pancreatic cancer.		
<b>McGavin, Suzanne</b>	Department of Nuclear Medicine	"Improved model of care for patients undergoing lymphoscintigraphy studies".	AHPOQ	\$53,070.00 (2016)

## 2016 Research Publications

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal Article	<b>Bhardwaj H, Stephens M, Bhatt, M and Thomas, P.</b> Prostate-Specific Membrane Antigen PET/CT Findings for Hepatic Hemangioma. <i>Clinical Nuclear Medicine</i> . 2016;41:968-969. PMID: 27749413 DOI: 10.1097/RLU.0000000000001384
Journal Article	<b>Stephens M,</b> Kim D, Shepherd B, Gustafson S, <b>Thomas P.</b> Intense uptake in amyloidosis of the seminal vesicles on 68Ga-PSMA PET mimicking locally advanced prostate cancer. <i>Clinical Nuclear Medicine</i> 2017;42:147-8 doi: 10.1097/RLU.0000000000001460 PMID: 27879490
Journal Article	Dowson N, Baker C, <b>Thomas P, Smith J,</b> Puttick S, Bell C, Rodell A, Aanerud J, Salvado O, Rose S. Federated optimisation of kinetic analysis problems. <i>Medical Image Analysis</i> . 2017;35:116-132
Journal Article	Rhee H, <b>Blazak J,</b> Ming Tham C, Lim Ng K, Shepherd B, Lawson M, Preston J, Vela I, Thomas P and Wood S. Pilot study: use of gallium-68 PSMA PET for detection of metastatic lesions in patients with renal tumour. <i>EJNMMI Research</i> 2016;6:76-81 DOI 10.1186/s13350-016-0231-6
Journal Article	Rhee H, Lim Ng K, Tse B, Chun Yeh M, Russell P, Nelson C, Samarantunga H, <b>Thomas P,</b> Vela I, Gobe G, Wood S. Using Prostate Specific Membrane Antigen (PSMA) Expression in Clear Cell Renal Cell Carcinoma For Imaging Advanced Disease Pathology 2016;48:613-6 doi: 10.1016/j.pathol.2016.05.01

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal Article	Rhee H, <b>Thomas P</b> , Shepherd B, Gustafson S, Vela I, Russell PJ, Nelson C, Chung E, Wood G, Malone G, Wood S, Heathcote P. Prostate Specific Membrane Antigen Positron Emission Tomography May Improve the Diagnostic Accuracy of Multiparametric Magnetic Resonance Imaging in Localized Prostate Cancer. The Journal of Urology 2016;196:1261-7 doi: 10.1016/j.juro.2016.02.3000
Journal Article	<b>Huang YT, Fong W, Thomas P.</b> Rectal Carcinoma on 68Ga-PSMA PET/CT* by Clinical Nuclear Medicine. 2016;41:e167-e168 DOI: 10.1097/RLU.0000000000001072
Journal Article	<b>Gray S, Stephens M, Lee K, Thomas P.</b> Ga68 DOTATATE avid hepatic, vertebral body and rib hemangiomas on PET/CT mimicking neuroendocrine tumour metastases.
Journal Article	Hafeez, <b>Bhatt M.</b> Clinical profile and treatment outcomes of advanced neuroendocrine tumours in rural and regional patients: a retrospective study from a regional cancer centre in North Queensland, Australia." Internal Medicine Journal November 2016.

## 2016 Conference Presentations – Invited Speaker, Oral and Poster

Type (Oral / Poster / Invited)	Presentation information (RBWH staff in bold)
Poster	Rhee H, <b>Thomas P</b> , Shepherd B, Greenslade S, Vela I, Russell PJ, Nelson C, Chung E, Wood G, Malone G, Wood S, Heathcote P. PSMA PET improves diagnostic accuracy of mpMRI in localised prostate cancer as confirmed by whole mount histopathology: implications for selection and assessment for active surveillance and focal therapy. Abstract published in European Urology Supplements, Volume 15, Issue 3, March 2016, Pages e568, e568a 10.1016/S1569-9056(16)60570-5
Poster	Chua B, Jeffree L, <b>Thomas P, Goodman S</b> and Lwin Z. Diagnostic performance of 18-fluorodeoxyglucose positron emission tomography (FDG-PET) in evaluation of glioma. Society of Neuro-oncology Arizona, USA 2016
Poster	Dickie G, Priyalal K, and <b>Thomas P.</b> Impact of PET Ga-68 PSMA on planning for radical radiotherapy treatment of prostate cancer Journal of Medical Imaging and Radiation Oncology (2016) 60 (Suppl. S1), 159
Invited	<b>Thomas P.</b> Prostate cancer theranostics. Brisbane Cancer Conference 2016
Invited	<b>Thomas P.</b> PSMA PET trials in prostate cancer and renal cell carcinoma. Therapeutic Radiation Oncology Group Annual Scientific Meeting, Brisbane 2016
Oral	<b>Latter M.</b> Automated production and quality control assessment of Lu-177 radiopharmaceuticals towards clinical targeted therapy. Australian and New Zealand Society of Nuclear Medicine Annual Scientific Meeting, Rotorua April 2016
Oral	<b>Smith J.</b> Modality Specific Image Quality - parameters, measurements and variables, PET-MR. Australasian College of Physical Scientists & Engineers in Medicine (ACPSEM) 2016.
Poster	<b>Latter M.</b> Robust radiopharmaceutical production, proven quality and high activity - how to have it all. Theranostics World Congress, Melbourne November 2016.
Oral	<b>Smith J.</b> Dosimetry in Practice Lu-177 DOTA-Octreotate Therapy. ANZSNM ASM Rotorua Physics Special Interest Group 2016.
Poster	<b>Scott D, Latter MJ, Lummis S, Tapper S.</b> Robust radiopharmaceutical production, proven quality and high activity – how to have it all. 4th Theranostics World Congress, 2016 Melbourne Australia
Poster	<b>Bartlett M, Ergenekon A, Latter MJ, Lummis S, Maas S, Maguire G, Scott S, Tai C, Tapper S.</b> Radiochemical Aspects of Ga-68 Radiopharmaceuticals: Experience from a Clinical PET Service. 3rd Annual CAI Symposium 2016 Brisbane Australia
Oral	<b>Taylor S,</b> RBWH Radiochemistry Capability: Enabling Imaging Research, HIRF Oncology Symposium, Aug 2016.
Oral	<b>Gray S, Bhatt M, Wyld D, Burge M, Nocher S, Goodman S, Joshi A.</b> Unusual cases of neuroendocrine tumour at the Royal Brisbane & Women's Hospital". Theranostics World Congress 2016.

## Research Publications / Presentations Summary Table

Research Group / Department	Publications		Presentations National and International	
	Journal Articles	Books and Chapters	Oral	Poster
	9	0	5	6

# Palliative and Supportive Care

## Current Research Group / Department Led Research Activity

Research Group / Department Lead Researchers	Collaborative Researchers	Research Project Title
Carol Douglas	<b>Alison Mudge</b>	Identifying Patients at End of Life- Point Prevalence Study Analysis

## Collaborative Research Activity

Collaborative Lead Researchers (RBWH staff in bold)	Your Research Group / Department Researchers	Research Project Title
<b>Carol Douglas</b> , Imogen Mitchell, Jennifer Weil (St.Vincent's, Melbourne), Michelle Levinson (Cabrini), Christine Drummond (Royal Adelaide), Matt Anstey (Sir Charles Gairdner), Jeanette Lacey (John Hunter), Jo Slee (Royal Melbourne)	Safety and Quality Unit- Leads Daniel Prentice and Alison Love	Understanding End Of Life In Acute Hospitals in Australia

## 2016 Research Publications

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
	<b>C. Douglas</b> , M.Clarke, S.Alexander and M.Khatun. A tertiary hospital audit of opioids and sedatives administered in the last 24h of life. Int Med J Mar 2016; Vol 46 ,issue 3:325-331





# Pharmacy

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## About this service:

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The pharmacy Department at RBWH works collaboratively with medical, nursing and allied health colleagues to provide safe, effective, economic and high quality evidence based medication management to patients at RBWH and as part of the wider hospital and health service. A clinical and support service is provided to all patients of RBWH 7 days a week. Research and the continual evaluation of the pharmacy service and wider health care service is a corner stone of the department's strategy to drive continual quality improvement in medicines management. Participation in research is expected and supported by all senior staff and junior staff are encouraged and supported to initiate quality improvement activities and develop research skills.

## Highlights of 2016:

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Research has focussed on evaluation of pharmacy practice (evaluation of the impact of pharmacist input to medical ward rounds on quality use of medicines and medicine use in palliative care, outpatient antibiotic therapy and pharmacist prescribing in surgical pre-assessment clinics and development of advanced practitioners) pharmacokinetics and pharmacometrics (in particular anticoagulants and antimicrobial therapy) and drug use in maternity, neonatology and paediatrics.

The department facilitates and chairs a monthly research collaborative meeting, between all pharmacy departments in Metro North and representatives from the University of Queensland and Queensland University of Technology. This is to encourage the pitching of research ideas at all levels, and promoted as a forum where novice and experienced researchers alike can gain advice and academic support from experts in their area of potential research.

Two research conjoint positions have been established with School of Pharmacy University of Queensland (SOP UQ) (2 x 0.2 FTE funded by SOP UQ), held by Dr Karen Whitfield and Dr Michael Barras. Department Director, Dr Ian Coombes is also an Adjunct Associate Professor at School of Pharmacy, University of Queensland and supervises, co-supervises 5 research higher degree students as well as being a co-investigator on innovative clinical pharmacy health care impact research in Sri Lanka.

As in previous years the pharmacy department was well represented at the federal hospital pharmacy conference in November, with the target to reach of 21 papers presented orally or as posters in 2015.

International collaboration has been extensive in particular from Prof Jason Roberts work with ICU, Burns and critical care team. He continues his role as a NHMRC Practitioner Fellow with Professorial positions in the Faculty of Medicine and SOP at UQ. He is also Chair of the Research Strategies Committee in SOP UQ and Director of the NHMRC-funded Centre for Research Excellence, REDUCE, which seeks to redefine antibiotic dosing to reduce the emergence of resistance. This multidisciplinary Centre leads >40 laboratory and clinically-based projects in over 20 countries, with many collaborators that are world-leaders in their fields.

In 2016 Metro North established an Honorary Research Fellow Position with University of Queensland which is held by Associate Professor Neil Cottrell, who has supervised 3 research higher degree students at RBWH.

## Benefits for clinical practice:

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Our research activities help improve patient outcomes by focusing on the design of pharmacy services; implementation of evidence based practitioner development programs. The work of Prof Roberts' team results in leading edge antimicrobial therapy in critical care patients.

## Supervised Post-graduate Research Students

Name (RBWH staff in bold)	Current Studies (e.g. PhD, Masters etc.)University (duration)	Research Project Title	Supervisors (RBWH staff in bold)
Mulvogue, K.	MPhil, UQ	Prescribing on a Geriatric Evaluation Medical Service using Start-Stop tool	<b>J Roberts, I Coombes, N.Cottrell</b>
Myers, B	PhD, UQ	A study to investigate and evaluate the impact of a clinical pharmacist on the safety and quality of the prescribing on a post take ward round.	<b>I. Coombes</b>
Murphy, K	MPhil, Griffith Uni (2014-2018)	Clozapine and concomitant medications: Assessing the completeness and accuracy of medication records for people prescribed clozapine under shared care arrangements	<b>I Coombes, A Wheeler</b>
Cardiff L	PhD, UQ	To evaluate education, training and competency assessments of medical and non medical prescribers	<b>I Coombes</b>
Ratanjee, S		Accuracy check for dispensed items by a pharmacy technician in Queensland: A pilot study.	<b>I Coombes</b>
Davies, K	MPhil, UQ	Establishing the validity and reliability of a tool to test competency of nursing medication administration practice using an expert panel review	<b>I Coombes</b>
Taufek, N	PhD, UQ	To investigate trace element levels in full term and pre-term infants – and to identify risk factors for deficiency.	<b>K Whitfield</b>
Abu Kassim, N	PhD, UQ	An investigation of the relationships between the levels of vitamins A, D and E in maternal serum/plasma and breast milk with those in infant serum/plasma.	<b>K Whitfield</b>
Ashley, S	MPhil, UQ	Outpatient Parenteral antibiotic therapy; an economic, clinical humanistic analysis at a quaternary hospital	<b>K Whitfield</b>
North, A	MPhil, UQ	An investigation into medication use during high risk pregnancy	<b>K Whitfield</b>
Fabio Gomes	PhD, UQ	Development of an assay for total vitamin D content in milk and application to study the effect of pasteurisation in breast milk	<b>K Whitfield</b>
Nor Taufek	PhD, UQ	Essential Trace Element Analysis of Human Breast Milk	<b>K Whitfield</b>
Karen Davies	PhD, UQ	Design, validation and testing of a nursing administration assessment and evaluation tool	<b>K Whitfield</b>
Chevalier, B	PhD, UQ	Examining communication between hospital pharmacists and patients during medication counselling, and exploring its relationship to medication adherence	<b>M Barras, N.Cottrell</b>
See, JY	PhD, UQ	Use of Pharmacometrics in insulin dosing.	<b>M Barras</b>
Nakagaki, M	MPharm, Newcastle, UK (2011-2016)	A randomised trial of olanzapine and palonosetron versus infused ondansetron for the treatment of nausea and vomiting in patients undergoing haematopoietic stem cell transplantation (HSCT)	<b>M Barras, G Kennedy</b>
Tsai, D	PhD, UQ (2013-2017)	The pharmacokinetics of various antibiotics in critically ill indigenous Australians.	<b>J Roberts, J Lipman</b>
Al-Obaid, AS	PhD, UQ (2012-2016)	The pharmacokinetics of various antibiotics in critically ill obese patients.	<b>J Roberts, J Lipman</b>
Coulter, S	PhD, UQ (2012-)	Cost-effectiveness of antimicrobial stewardship in the Australian healthcare system.	<b>J Roberts</b>
Parker, S	PhD, UQ (2011-2016)	Translating innovative pharmacokinetic sampling techniques into improved antibiotic dosing regimens in critically ill patients.	<b>J Roberts, J Lipman</b>
Abdul-Aziz, MH	PhD, UQ (2011-2016)	Continuous versus bolus dosing of beta-lactam antibiotics in critically ill patients.	<b>J Roberts, J Lipman</b>
Shekar, K	PhD, UQ (2011-2016)	The pharmacokinetics of various antibiotics in critically ill patients receiving extracorporeal membrane oxygenation.	<b>J Roberts</b>

Name (RBWH staff in bold)	Current Studies (e.g. PhD, Masters etc.)University (duration)	Research Project Title	Supervisors (RBWH staff in bold)
Economou, C	MPhil, UQ (2011-)	The effect of renal replacement therapy modalities on antibiotic pharmacokinetics in critically ill patients.	<b>J Roberts, J Lipman</b>
Wong, G	MPhil, UQ (2011-)	Therapeutic drug monitoring of beta-lactam antibiotics in critically ill patients.	<b>J Roberts, J Lipman</b>
Sinnollareddy, M	PhD, Uni SA (2010-16)	Pharmacokinetics of fluconazole and other antifungals in critically ill patients.	<b>J Roberts</b>
Wang, L	MPhil, UQ (2013-)	Antibiotic tissue pharmacokinetics in burn injury patients.	<b>J Roberts, J Lipman</b>
Dhanani, J	PhD, UQ (2014-)	An in vitro and in vivo investigation of the comparative lung pharmacokinetics of antibiotics administered intravenously and by aerosolisation	<b>J Roberts</b>
Dorofaeff, T	PhD, UQ (2016-)	Antibiotic pharmacokinetics in critically ill infants and children	<b>J Roberts, J Lipman</b>
Guerra Valero, Y	PhD, UQ (2016-)	Investigation of the use of micro sampling devices for use in ICU pharmacokinetic studies	<b>J Roberts, J Lipman</b>
Gupta, N	MPhil, UQ (2016-)	Antibiotic penetration into the CSF of critically ill patients	<b>J Roberts, J Lipman</b>
Ryan, R	MPhil, UQ (2016-)	Perioperative cefazolin pharmacokinetics in obese patients	<b>J Roberts, J Lipman</b>
Gregory, B	MPhil, QUT (2016-)	Dosing of immunosuppressant medication during renal replacement therapy	<b>J Roberts</b>
Waddell, J	PhD, QUT	The Practice Changing Pharmacist: Capable, Confident and Competent	<b>A Hale, L Nissen, G Kyle, M Clark</b>
Bettenay, K	PhD, QUT	An evaluation of allied health prescribing in Queensland and development of non-medical prescribing implementation and evaluation frameworks.	<b>A Hale, L Nissen</b>
Lo, A	MPhil, UQ (2016-)	Development of an intervention recording app to evaluate clinical pharmacy interventions	<b>J Roberts, A Hale</b>
Ogilvie, M	MPhil, QUT	To evaluate the effect of a collaborative doctor pharmacist prescribing model compared to the usual medical prescribing model in the Emergency Department	<b>A Hale, L Nissen, G Kyle</b>
Richards, P	MPhil, QUT	A comparison between doctor pharmacist collaborative and usual medical model for perioperative prescribing of medications in an anaesthetic lead pre admission clinic	<b>A Hale, L Nissen, G Kyle</b>
Harper, N	PhD, UQ	Impact of an Automated Medication Distribution System (AMDS) on medication safety in the Emergency Department	<b>D Stowasser, N Cottrell, I Coombes, J Suna</b>
Snoswell, C	PhD, UQ	The cost-effectiveness and acceptability of teledermoscopy in Australia	N/A
McCourt, E	MPhil, QUT	An exploration of disaster training for pharmacists and its impact on preparedness and response	Lisa Nissen, Judith Singleton
Sanjida, S	PhD, QUT	Psychological and pharmacological treatment of anxiety and depression in cancer patients	M Janda, I McPhail and <b>K Mulvogue</b>

## Research Positions: Coordinators, Fellow, Adjunct and Honorary Positions

Name	Type of Fellowship	Research Program	University Affiliation (years)
Dr Ian Coombes	Adjunct Associate Professor	School of Pharmacy, UQ	2011- present
Dr Andrew Hale	Adjunct Associate Senior Lecturer	School of Pharmacy, UQ	2008 - present
Dr Michael Barras	Adjunct Associate Professor	School of Pharmacy, UQ	2012 - present
Dr Neil Cottrell	Honorary Research Fellow	Pharmacy Services, Metro North HHS	2015 - present
Dr Karen Whitfield	Conjoint Research Fellow Adjunct Senior Lecturer	School of Pharmacy , UQ	2013 - present
Carla Scuderi	Course Coordinator PHRM7040	School of Pharmacy , UQ	2015 - present
Gemma Woodruff	Conjoint Associate Lecturer	School of Pharmacy , UQ	2015 - present
Jason Roberts	Professor and Chair of Research Strategies Committee Professor Honorary Professor Honorary Professor	School of Pharmacy , UQ Faculty of Medicine University of South Australia University of Liverpool, UK	2014 - present

## Current Research Group / Department Led Research Activity

Research Group / Department Lead Researchers	Collaborative Researchers	Research Project Title
Ian Coombes	Brooke Myers, Charles Mitchell, Peter Donovan, Jenny Whitty	Evaluation pharmacists impact on Post Take Ward Round
Danielle Stowasser	Ian Coombes, Neil Cottrell, Jessic SUNA	Evaluation Automated medication distribution
Carla Scuderi, Carla Dawson, Danielle Ironside, Michelle Rice, Lauren Millard	Dr Adrian Kark, Neil Cottrell	Supporting adherence in patients with chronic kidney disease through a pharmacist led targeted medication management plan
Withers J, Barras M		Audit of Medication Information in Enterprise Discharge Summaries (EDS) from Internal Medicine Service (IMS) at the RBWH
Midori Nakagaki	Madison Moulston	4th Year UQ Student placement project –  Oral Magnesium after Allogeneic Bone Marrow Transplant (BMT) + Reviewing CSA dose adjustment
Julie Withers Suzannah Chapman Jess McIlwain Gemma Woodruff	Kelvin Tan	4th Year UQ Student placement project – Medical bedside drawer audit
Lyndsay Steele Andy Hale	Mojdeh Kholghi	4th Year UQ Student placement project – ABF Mapping across clinics
Michael Barras Amy Legg	Po-Ya Wu	4th Year UQ Student placement project – Enoxaparin & AntiXa levels
Helen Trenerry Panteha Voussoughi Amy Legg	Biong Agon	4th Year UQ Student placement project – Refrigeration project
Karen Davies Champika Pattullo	Cem Ozturk	4th Year UQ Student placement project – IV Safety Software/IV line procedure
Karen Davies Champika Pattullo	Khalid Raza	4th Year UQ Student placement project – IV Safety Software/IV line procedure
Ian Coombes Elicia McDougall Champika Pattullo	Tremaine Stroebel	4th Year UQ Student placement project – Audit of oxycodone use in emergency department
Dr Nathan Peters	Zhi Chung Ng	4th Year UQ Student placement project – Antibiotic timing in surgery (prophylaxis in MRSA patients)

Research Group / Department Lead Researchers	Collaborative Researchers	Research Project Title
Adrienne Kostellar	Tien Nguyen (Angel)	4th Year UQ Student placement project – Quality of communication & documentation from pharmacists on high-risk drugs
Emily D'Arcy Champika Pattullo	Long Nguyen	4th Year UQ Student placement project – Day in the life of a cardiology pharmacist – time-in-motion study
Minnie Park	Minchul (Ben) Kim	4th Year UQ Student placement project – Use of injectable medications for the pharmacological management of acutely disturbed behaviour
Dr Nathan Peters Champika Pattullo	Naythen Hoang	4th Year UQ Student placement project – A retrospective audit of Sugammadex usage at the Royal Brisbane and Women's Hospital
Liam Busuttin	Linda Wong	4th Year UQ Student placement project – Justifying and assessing the role of a pharmacist within an advanced musculoskeletal physiotherapy screening clinic and multidisciplinary service
Andy Hale Abby Yu	Amy Speck	4th Year UQ Student placement project – Benefits of a Pharmacist in Pre Admission Clinic
Champika Pattullo	Benjamin Strimaitis	4th Year UQ Student placement project – Evaluation of an 'IV to Oral' program on a surgical ward (9AN) at the Royal Brisbane & Women's Hospital (RBWH)
Margie Butnoris	Lynn Ooi	4th Year UQ Student placement project – Pharmaceutical Waste Management at the RBWH
Nicola Harper	Nicholas Yeh	4th Year UQ Student placement project – Documentation of medication allergies and adverse drug reactions across RBWH
Midori Nakagaki	Cindy Teoh	4th Year UQ Student placement project – Oral Magnesium after Allogeneic Bone Marrow Transplant (BMT) + Reviewing CSA dose adjustment
Carla Scuderi	Josam Alcober	4th Year UQ Student placement project – Pill Burden in CKT patients
Panteha Voussoughi Amy Legg Helen Trenerry	Fiona Fong	4th Year UQ Student placement project – Auditing cold chain practice at the Royal Brisbane and Women's Hospital (RBWH) and developing an educational tool to promote optimal practice

## Collaborative Research Activity

Collaborative Lead Researchers (RBWH staff in bold)	Your Research Group / Department Researchers	Research Project Title
<b>Jenna Turkington</b> , Brooke Myers (GCUH), Christy Noble (Gold Coast UH)	Coombes I, Peter Donovan, Christy Nobel	Improving Intern Medical Officer Prescribing through an Intervention of Self Assessment and Feedback.

## Research Awards and Achievements

Recipient	Award	Event
Jason Roberts	NHMRC Practitioner Fellow	



## Research Grants – Awarded

Investigators (RBWH staff in bold)	RBWH Research Groups / Departments	Project Title	Granting Body	Total Amount (years)
<b>Michael Barras, Peter Donovan, Glen Kennedy, Alison Mudge, Ian Coombes</b>	Pharmacy, clinical pharmacology, Haematology, Internal medicine	Evaluation of a Collaborative Optimisation Anticoagulation (COAG)	\$70,000	1 year
<b>Ian Coombes, Peter Donovan</b> , Christy Noble, Charles Mitchell	Pharmacy, clinical pharmacology,	Evaluation of the impact of an evaluation and feedback tool on junior Dr prescribing	\$40,000	
<b>Karen Whitfield</b>	Pharmacy, Neonatal	Neonatal Medication Safety across the Continuum of Care	\$10,000	
<b>Rochelle Ryan, Dwayne Jackson, Rebecca Christensen, Jason Roberts</b>	Pharmacy, Anaesthetics	Dose cefazolin prophylaxis during elective bariatric surgery achieve therapeutic concentration in plasma and interstitial fluid?	\$34,059	1 year
<b>Jason Roberts, Jeffrey Lipman</b> , Sandra Peake, John Turnidge, Monica Slavin, Peter Hopkins, Juergen Bulitta, Sanjoy Paul, Jan De Waele, Gavin Joynt	Pharmacy, ICU	Centre for REdefining antibiotic use to reDUce resistanCE and prolong the lives of antibiotics (REDUCE)	\$400,000	\$2,158,296 5 years
Menino Cotta, <b>Lindy Jeffree, Jason Roberts</b>	Pharmacy, ICU, Neurosurgery	Levetiracetam pharmacokinetics in critically ill patients with severe traumatic brain injury and subarachnoid haemorrhage	\$40,000	1 year
<b>Jayesh Dhanani, Jason Roberts</b> , John Fraser, <b>Jeremy Cohen</b> .	ICU, Pharmacy	Does inhaled tobramycin distribute effectively into the lungs? A comparative study using radiolabelled tobramycin	\$40,000	1 year
<b>Jason Roberts, Rob Boots, Menino Cotta</b>	ICU, Pharmacy	Optimising ceftriaxone dosing for critically ill patients with pneumonia	\$40,000	1 year
Matthew Cooper, Mark Blaskovich, <b>David Paterson, Jason Roberts</b> , Karl Hansford	ID, Pharmacy	Novel membrane-targeted antibiotics against drug-resistant Gram-positive bacterial infections.	\$300,000	3 years \$1,351,496.25

## 2016 Research Publications

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal Article	Waddell JJ, <b>Hale AR</b> , Nissen LM. Leadership and Advanced Pharmacy Practice. Research in Social and Administrative Pharmacy. 2016; 12(4): 662-663. DOI: 10.1016/j.sapharm.2016.02.004
Journal Article	Waddell JJ, Nissen LM, <b>Hale AR</b> . Leadership and Advanced Pharmacy Practice: Mapping the APPF to evidence based leadership framework. Journal of Pharmacy Practice and Research. 2016 [Accepted for Publication]
Journal Article	<b>Mulvogue K, Roberts JA, Coombes I</b> , Cottrell N, <b>Kanagarajah S</b> , Smith A. The effect of pharmacists on ward rounds measured by the STOPP/START tool in a specialized geriatric unit. Journal of Clinical Pharmacy and Therapeutics. 2017; 42 (2): 178-184. DOI 10.1111/jcpt.12489
Journal Article	<b>Hale, A.</b> and Coombes, I. and Stokes, J. and Aitken, S. and Clark, F. and Nissen, L. (2016). "Patient satisfaction from two studies of collaborative doctor-pharmacist prescribing in Australia." Health Expect 19(1): 49-61.
Journal Article	The effect of pasteurization on trace elements in donor breast milk. Mohd-Taufek, N., Cartwright, D., Davies, M., Hewavitharana, A. K., Koorts, P., McConachy, H., Shaw, P. N., Sumner, R. and Whitfield, K. (2016) The effect of pasteurization on trace elements in donor breast milk. Journal of Perinatology, 36 10: 897-900. doi:10.1038/jp.2016.88
Journal Article	Effect of pasteurisation on the concentrations of vitamin D compounds in donor breastmilk. Gomes, Fabio P., Shaw, P. Nicholas, <b>Whitfield, Karen</b> , Koorts, Pieter, McConachy, Helen and Hewavitharana, Amitha K. (2016) Effect of pasteurisation on the concentrations of vitamin D compounds in donor breastmilk. International Journal of Food Sciences and Nutrition, 67 1: 16-19. doi:10.3109/09637486.2015.1126566

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal Article	The simultaneous analysis of eight essential trace elements in human milk by ICP-MSMohd-Taufek, Nor, Cartwright, David, Davies, Mark, Hewavitharana, Amitha K., Koorts, Pieter, Shaw, Paul N., Sumner, Ronald, Lee, Eugene and <b>Whitfield, Karen</b> (2016) The simultaneous analysis of eight essential trace elements in human milk by ICP-MS. <i>Food Analytical Methods</i> , 9 7: 1-8. doi:10.1007/s12161-015-0396-z
Journal Article	Sime FS, Johnson A, Whalley S, Santoyo-Castelazo A, Montgomery AB, Walters KA, Lipman J, Hope WW, <b>Roberts JA</b> . Pharmacodynamics of aerosolized fosfomycin and amikacin against resistant clinical isolates of <i>Pseudomonas aeruginosa</i> and <i>Klebsiella pneumoniae</i> in a hollow-fiber infection model: Experimental Basis for Combination Therapy. <i>Antimicrob Agents Chemother</i> 2016; in press (date accepted 10th October 2016; AAC01763-16).
Journal Article	Tsai D, Stewart P, Goud R, Gourley S, Hewagama S, Krishnaswamy S, Wallis SC; <b>Lipman J, Roberts JA</b> . Pharmacokinetics of piperacillin in critically ill Australian Indigenous patients with severe sepsis. <i>Antimicrob Agents Chemother</i> 2016; 60(12):7402-7406.
Journal Article	Tsai D, Stewart P, Goud R, Gourley S, Hewagama S, Krishnaswamy S, Wallis SC; <b>Lipman J, Roberts JA</b> . Total and unbound ceftriaxone pharmacokinetics in critically ill Australian Indigenous patients with severe sepsis. <i>Int J Antimicrob Agents</i> 2016; 48(6):748-752.
Journal Article	Parker SL, Guerra Valero YC, <b>Lipman J, Roberts JA</b> , Wallis SC. Effect of time on recovery of plasma microsamples for the quantitative determination of vancomycin. <i>Bioanalysis</i> 2016; 8(21):2235-2242
Journal Article	Kalil AC, Metersky ML, Klompas M, Muscedere J, Sweeney DA, Palmer LB, Napolitano LM, O'Grady NP, Bartlett JG, Carratalà J, El Solh AA, Ewig S, Fey PD, File TM, Restrepo MI, <b>Roberts JA</b> , Waterer GW, Cruse P, Knight SL, Brozek JL. Executive Summary: Management of Adults With Hospital-acquired and Ventilator-associated Pneumonia: 2016 Clinical Practice Guidelines by the Infectious Diseases Society of America and the American Thoracic Society. <i>Clin Infect Dis</i> 2016; 63(5): 575-82.
Journal Article	Farkas A, Daroczi G, Villasurda P, Dolton M, <b>Nakagaki M, Roberts JA</b> . Comparative evaluation of the predictive performance of three different structural population pharmacokinetic models to predict future voriconazole concentrations. <i>Antimicrob Agents Chemother</i> 2016; 60(11):6806-6812.
Journal Article	Silbert BI, Ho KM, <b>Lipman J, Roberts JA</b> , Corcoran TB, Morgan TJ, Pavey W, Mas E, Barden AE, Mori TA. Does furosemide increase oxidative stress in acute kidney injury? <i>Antioxid Redox Signal</i> 2016; 26(5):221-226.
Journal Article	Alobaid AS, Wallis SC, <b>Jarrett P, Starr T, Stuart J, Lassig-Smith M</b> , Ordonez J, Roberts MS, Sinnollareddy MG, Roger C, <b>Lipman J, Roberts JA</b> . Effect of obesity on the population pharmacokinetics of fluconazole in critically ill patients. <i>Antimicrob Agents Chemother</i> 2016; 60(11):6550-6557.
Journal Article	Tsai D, Stewart P, Goud R, Gourley S, Hewagama S, Krishnaswamy S, Wallis SC; <b>Lipman J, Roberts JA</b> . Optimising meropenem dosing in critically ill Australian Indigenous patients with severe sepsis. <i>Int J Antimicrob Agents</i> 2016; 48(5):542-546.
Journal Article	Kalil AC, Metersky ML, Klompas M, Muscedere J, Sweeney DA, Palmer LB, Napolitano LM, O'Grady NP, Bartlett JG, Carratalà J, El Solh AA, Ewig S, Fey PD, File TM, Restrepo MI, <b>Roberts JA</b> , Waterer GW, Cruse P, Knight SL, Brozek JL. Management of Adults With Hospital-acquired and Ventilator-associated Pneumonia: 2016 Clinical Practice Guidelines by the Infectious Diseases Society of America and the American Thoracic Society. <i>Clin Infect Dis</i> 2016;63(5): e61-e111.
Journal Article	Sartelli M, Weber DG, Ruppé E, Bassetti M, Wright BJ, Ansaloni L, Catena F, Cocolini F, Abu-Zidan FM, Coimbra R, Moore EE, Moore FA, Maier RV, De Waele JJ, Kirkpatrick AW, Griffiths EA, Eckmann C, Brink AJ, Mazuski JE, May AK, Sawyer RG, Mertz D, Montravers P, Kumar A, <b>Roberts JA</b> , Vincent JL, Watkins RR, Lowman W, Spellberg B, Abbott IJ, Adesunkanmi AK, Al-Dahir S, Al-Hasan MN, Agresta F, Althani AA, Ansari S, Ansumana R, Augustin G, Bala M, Balogh ZJ, Baraket O, Bhangu A, Beltrán MA, Bernhard M, Biffi WL, Boermeester MA, Brecher SM, Cherry-Bukowiec JR, Buys OR, Cainzos MA, Cairns KA, Camacho-Ortiz A, Chandy SJ, Jusoh AC, Chichom-Mefire A, Colijn C, Corcione F, Cui Y, Curcio D, et al. Antimicrobials: a global alliance for optimizing their rational use in intra-abdominal infections (AGORA). <i>World J Emerg Surg</i> 2016; 11: 33.
Journal Article	García de Lorenzo A, Luque S, Grau S, Agrifoglio A, Cachafeiro L, Herrero E, Asensio MJ, Sánchez M, <b>Roberts JA</b> . Comparative population plasma and tissue pharmacokinetics of micafungin in critically ill patients with severe burn injuries and patients with complicated intra-abdominal infection. <i>Antimicrob Agents Chemother</i> 2016; 60(10):5914-21.
Journal Article	Ingram PR, Rawlins MR, Murray RM, <b>Roberts JA</b> , Manning L. Tigecycline use in the outpatient parenteral antibiotic therapy setting. <i>Eur J Clin Microbiol Infect Dis</i> 2016; 35(10):1673-7.
Journal Article	Roger C, Wallis SC, Muller L, Saissi G, <b>Lipman J, Lefrant JY, Roberts JA</b> . Influence of renal replacement modalities on amikacin population pharmacokinetics in critically ill patients on continuous renal replacement therapy. <i>Antimicrob Agents Chemother</i> 2016; 60(8):4901-9.
Journal Article	Udy AA, <b>Jarrett P, Lassig-Smith M, Stuart J, Starr T, Dunlop R</b> , Deans R, <b>Roberts JA</b> , Senthuran S, Boots RJ, Bisht K, Bulmer A, Lipman J. Augmented renal clearance (ARC) in traumatic brain injury (TBI): A single-center observational study of atrial natriuretic peptide, cardiac output, and creatinine clearance. <i>J Neurotrauma</i> 2016; 34(1):137-144.
Journal Article	Cristallini S, Hites M, Kabtouri H, Roberts JA, Beumier M, Cotton F, <b>Lipman J</b> , Jacobs F, Vincent JL, Creteur J, Taccone FS. A new regimen for continuous infusion of vancomycin in critically ill patients. <i>Antimicrob Agents Chemother</i> 2016; 60(8):4750-6.
Journal Article	Zelenitsky S, Lawson C, Calic D, Ariano R, <b>Roberts JA, Lipman J</b> , Zhanel GG. Integrated pharmacokinetic-pharmacodynamic modeling to evaluate antimicrobial prophylaxis in abdominal surgery. <i>J Antimicrob Chemother</i> 2016; 71(10):2902-8.

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal Article	Alobaid AS, Wallis SC, <b>Jarrett P, Starr T, Stuart J, Lassig-Smith M</b> , Ordonez-Mejia JL, Roberts MS, <b>Lipman J, Roberts JA</b> . What is the effect of obesity on the population pharmacokinetics of meropenem in critically ill patients? <i>Antimicrob Agents Chemother</i> 2016; 60(8):4577-84.
Journal Article	<b>Cotta MO, Dulhunty JM, Roberts JA</b> , Myburgh J, Lipman J. Should beta-lactam antibiotics be administered by continuous infusion in critically ill patients? A survey of Australia and New Zealand intensive care unit doctors and pharmacists. <i>Int J Antimicrob Agents</i> 2016; 47(6): 436-8.
Journal Article	<b>McDonald C, Cotta MO</b> , Little PJ, McWhinney B, Ungerer J, Lipman J, Roberts JA. Is high-dose B-lactam therapy associated with excessive drug toxicity in critically ill patients? <i>Minerva Anestesiologica</i> 2016; 82(9):957-65.
Journal Article	Bergen P, Bulitta J, Kirkpatrick CMJ, Rogers K, McGregor M, Wallis SC, <b>Paterson DL, Lipman J, Roberts JA</b> , Landersdorfer C. Effect of different renal function on anti-bacterial effects of piperacillin against <i>Pseudomonas aeruginosa</i> evaluated via the hollow fibre infection model and mechanism-based modeling. <i>J Antimicrob Chemother</i> 2016; 71: 2509-2520.
Journal Article	Inhaled Heparin Investigators. <b>Bandeshe H, Boots RJ, Dulhunty J, Dunlop R, Holley A, Jarrett P</b> , Gomersall C, <b>Lipman J, Lo T, O'Donoghue S, Paratz J, Paterson DL, Roberts JA, Starr T</b> , Stephens D, Stuart J, Thomas J, Udy AA, White H. Is Inhaled Prophylactic Heparin Useful for Prevention and Management of Pneumonia in Ventilated ICU Patients? <i>J Crit Care</i> 2016;34:95-102.
Journal Article	Silbert BI, Ho KM, <b>Lipman J, Roberts JA</b> , Corcoran TB, Morgan DJ, Pavey W, Mas E, Barden AE, Mori TA. Determinants of urinary output response to intravenous furosemide in acute kidney injury: a pharmacokinetic / pharmacodynamic study. <i>Crit Care Med</i> 2016; 44(10):e923-9.
Journal Article	<b>Roberts JA</b> , Abdul-Aziz-MH, Davis JS, <b>Dulhunty J</b> , Myburgh J, Bellomo R, Lipman J. Continuous versus Intermittent Beta-lactam Infusion in Severe Sepsis: A Meta-analysis of Individual Patient Data From Randomized Trials. <i>Am J Respir Crit Care Med</i> 2016; 194(6): 681-91.
Journal Article	Solé-Lleonart C, <b>Roberts JA</b> , Chastre J, Poulakou G, Palmer LB, Blot S, Felton T, Bassetti M, Luyt CE, Pereira JM, Riera J, Welte T, Qiu H, Rouby JJ, Rello J. Intratracheal Administration of Antimicrobial Agents in Mechanically Ventilated Adults: An International Survey on Delivery Practices and Safety. <i>Respir Care</i> 2016; 61(8):1008-14.
Journal Article	Roger C, Wallis SC, Louart B, Lefrant, JY, <b>Lipman J</b> , Muller L, Roberts JA. Comparison of equal doses of continuous veno-venous haemofiltration and haemodiafiltration on ciprofloxacin population pharmacokinetics in critically ill patients. <i>J Antimicrob Chemother</i> 2016; 71(6): 1643-50.
Journal Article	Roberts DM, <b>Ranganathan D</b> , Wallis SC, Varghese JM, Kark A, <b>Lipman J, Roberts JA</b> . Pharmacokinetics of intraperitoneal cefalothin and ceftazidime in patients being treated for peritoneal dialysis-associated peritonitis. <i>Perit Dial Int</i> 2016; 36: 415-420.
Journal Article	Osthoff M, Abdul-Aziz MH, Siegemund M, Balestra G, <b>Roberts JA</b> . Prolonged Administration of $\beta$ -lactam Antibiotics - a Comprehensive Review and Critical Appraisal. <i>Swiss Med Weekly</i> 2016; 146:w14368.
Journal Article	<b>Dhanani J</b> , Fraser JF, Chan HK, Rello J, <b>Cohen J, Roberts JA</b> . Fundamentals of aerosol therapy in critical care. <i>Crit Care</i> 2016; 20(1):269.
Journal Article	Dorofaeff T, Bandini RM, <b>Lipman J</b> , Ballot DE, <b>Roberts JA</b> , Parker SL. Uncertainty in antibiotic dosing in critically ill paediatric patients: can microsampling provide the answers? <i>Clin Ther</i> 2016; 38(9):1961-75.
Journal Article	Parker SL, Dorofaeff T, <b>Lipman J</b> , Ballot DE, Bandini RM, Wallis SC, <b>Roberts JA</b> . Is there a role for microsampling in antibiotic pharmacokinetic studies? <i>Exp Opin Drug Metab Toxicol</i> 2016; 12(6): 601-14.
Journal Article	Jager NL, Van Hest R, <b>Lipman J</b> , Taccone FS, <b>Roberts JA</b> . Therapeutic drug monitoring of anti-infective agents in critically ill patients. <i>Exp Rev Clin Pharmacol</i> 2016; 9(7): 961-79.
Journal Article	<b>Denny K, Cotta MO</b> , Parker SL, <b>Roberts JA, Lipman J</b> . The Use and Risks of Antibiotics in Critically Ill Patients. <i>Exp Opin Drug Saf</i> 2016; 15(5): 667-78.
Journal Article	Calandra T, <b>Roberts JA</b> , Antonelli M, Bassetti M, Vincent JL. Diagnosis and management of invasive candidiasis in the ICU: An updated approach to an old enemy. <i>Crit Care</i> 2016; 20(1):125.
Journal Article	Vincent JL, Bassetti M, Francois B, Karam G, Chastre J, Torres A, <b>Roberts JA</b> , Taccone FS, Rello J, Calandra T, DeBacker D, Welte T, Antonelli M. Advances in Antibiotic Therapy in the Critically Ill. <i>Crit Care</i> 2016; 20(1): 133.
Journal Article	Alobaid AS, Hites M, <b>Lipman J</b> , Taccone FS, <b>Roberts JA</b> . The effect of obesity on the pharmacokinetics of antimicrobials in critically ill patients: a structured review. <i>Int J Antimicrob Agents</i> 2016; 47: 259-68.
Journal Article	<b>Roberts JA</b> , Taccone FS, <b>Lipman J</b> . Understanding PK/PD. <i>Intensive Care Med</i> 2016; 42:1797-1800.
Journal Article	<b>Roberts JA</b> , Choi GYS, Joynt GM, Paul SK, Deans R, Peake S, Cole L, Stephens D, Bellomo R, Turnidge J, Wallis SC, Roberts MS, Roberts DM, <b>Lassig-Smith M, Starr T, Lipman J</b> . SaMpling Antibiotics in Renal Replacement Therapy (SMARRT): an observational pharmacokinetic study in critically ill patients. <i>BMC Infect Dis</i> 2016; 16:103.
Journal Article	<b>Cotta MO, Roberts JA, Lipman J</b> . We need to optimize piperacillin-tazobactam dosing in critically ill patients - but how? <i>Crit Care</i> 2016; 20(1): 163.

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
Journal Article	<b>Tabah A, Lipman J, Roberts JA.</b> Are new gentamicin dosing guidelines suitable for achieving target concentrations in patients with sepsis and septic shock? <i>Anaesth Crit Care Pain Med</i> 2016; 35: 311–2.
Journal Article	Hanrahan T, <b>Lipman J, Roberts JA.</b> Antibiotic dosing in obesity – a BIG challenge. <i>Crit Care</i> 2016; 20: 240.
Journal Article	<b>Nakagaki M, Barras M, Curley C, Butler JP, Kennedy GA.</b> A Randomized Trial of Olanzapine Versus Palonosetron Versus Infused Ondansetron for the Treatment of Breakthrough Chemotherapy-Induced Nausea and Vomiting in Patients Undergoing Hematopoietic Stem Cell Transplantation. <i>Support Care Cancer</i> 25 (2), 607–613.
Book chapter	Jamal JA <b>Roberts JA.</b> Aminoglycoside dosing in obesity. In Zaidi STR, <b>Roberts JA</b> ed. <i>Drug Dosing in Obesity, Volume 1: Antimicrobials.</i> Springer, Switzerland, 2016.
Book chapter	Jamal JA <b>Roberts JA.</b> Polyene antifungals. In Zaidi STR, <b>Roberts JA</b> ed. <i>Drug Dosing in Obesity, Volume 1: Antimicrobials.</i> Springer, Switzerland, 2016.
Book chapter	<b>Cotta MO, Roberts JA.</b> Pharmacokinetic and pharmacodynamic principles of antimicrobials. In Laundry M, Gilchrist M, Whitney L ed. <i>Antimicrobial Stewardship – A practical guide to the introduction, maintenance and development of an effective program.</i> Oxford University Press, Oxford, UK, 2016.
Book chapter	Sinnollareddy MG, <b>Roberts JA.</b> Pharmacodynamic considerations in critically ill patients. In Rotschafer JC, Andes DR Rodvold KA ed. <i>Antibiotic Pharmacodynamics.</i> Springer, New York, 2016.

## 2016 Conference Presentations – Invited Speaker, Oral and Poster

Type (Oral / Poster / Invited)	Presentation information (RBWH staff in bold)
Oral	<b>Turkington J, Coombes I, Peter Donovan,</b> Christy Nobel, Brooke Myers. Using educational research methods to examine and support junior doctor prescribing: innovation in methodological approaches. National Prevocational Medical Education Conference, Tas Nov 6-9 2016.
Oral	<b>Turkington J, Coombes I, Peter Donovan,</b> Christy Nobel, Brooke Myers. Using educational research methods to examine and support junior doctor prescribing: innovation in methodological approaches. Medicines management: SHPA National Conference. Perth, Nov 16-19 2016.
Invited Plenary	<b>Coombes I.</b> Symposium: Clinical practice: AN AUSTRALIAN PERSPECTIVE. Global Conference pharmacy and pharmaceutical Science Education. Nanjing China November 2016.
Invited Plenary	<b>Coombes I.</b> Symposium: Clinical practice: AN AUSTRALIAN PERSPECTIVE. Global Conference pharmacy and pharmaceutical Science Education. Nanjing China November 2016.
Oral	<b>Trennery H, Coombes I, Barras M, Kubler P</b> The Pharmacist's role in Medication Management for Patients in a Rheumatoid Arthritis Outpatient clinic. Health Care Round Table, Melbourne, June 2016.
Oral	<b>Park M,</b> Chemical restraint – What are we using and are we adhering to guidelines? SHPA 42 <sup>nd</sup> Medicines Management Conference. Perth, Nov 2016
Invited Speaker	<b>Hale A.</b> Pharmacist Prescribing in Pre Admission Clinic. Health Care Round Table, Melbourne, June 2016.
Oral	N. Mohd Taufek, D. Cartwright, M. Davies, A.K. Hewavitharana, P. Koorts, K. Palmer-Field, P.N. Shaw, K. Whitfield. Investigating the changes of eight essential trace elements in preterm breast milk in the first month of lactation, The Neonate- An International Symposium for Asia, 30 <sup>th</sup> March – 1 <sup>st</sup> April 2016, Shanghai, China.
Oral	N. Mohd Taufek, J.A. Duley, H. G. Liley, P.N. Shaw, <b>K. Whitfield.</b> Investigating the longitudinal variation of eight essential trace elements in preterm human milk- a case study, The Neonate- An International Symposium for Asia, 30 <sup>th</sup> March – 1 <sup>st</sup> April 2016, Shanghai, China
Oral	N. Mohd Taufek, D. Cartwright, M. Davies, A.K. Hewavitharana, P. Koorts, H. McConachy, P.N. Shaw, <b>K. Whitfield.</b> Investigating the effect of pasteurisation process on trace elements in donor breast milk, Summer conference on Neonatology, 25 <sup>th</sup> -27 <sup>th</sup> June 2015, Avignon, Provence, France.
Oral	<b>Whitfield K Al-Adhami N</b> (2015) Changing prescribing culture – a focus on codeine postpartum. Neonatal and Paediatric Pharmacist Group 21 <sup>st</sup> Conference 6-8 <sup>th</sup> Nov 2015 Cheshire UK (oral presentation) and Society of Obstetric Medicine Australia and New Zealand Conference 16 <sup>th</sup> -18 <sup>th</sup> Oct 2015 Melbourne
Poster	Barkejj C, <b>North A, Whitfield K</b> Medication Management of the Extremely Premature Neonate – the impact of a specialist pharmacist. Neonatal and Paediatric Pharmacist Group 21 <sup>st</sup> Conference 6-8 <sup>th</sup> Nov 2015 Cheshire UK
Poster	Mohd-Taufek, Nor, Cartwright, David, Davies, Mark, Hewavitharana, Amitha K., Koorts, Pieter, Shaw, Paul N., Sumner, Ronald, Lee, Eugene and <b>Whitfield, Karen.</b> Investigating the effect of the pasteurisation process on trace elements in donor breast milk. Neonatal and Paediatric Pharmacist Group 21 <sup>st</sup> Conference 6-8 <sup>th</sup> Nov 2015 Cheshire UK

Type (Oral / Poster / Invited)	Presentation information (RBWH staff in bold)
Poster	Gomes, Fabio P., Shaw, P. Nicholas, <b>Whitfield, Karen</b> , Koorts, Pieter, McConachy, Helen and Hewavitharana, Amitha K. (2016) Effect of pasteurisation on the concentrations of vitamin D compounds in donor breast milk. Neonatal and Paediatric Pharmacist Group 21st Conference 6-8 <sup>th</sup> Nov 2015 Cheshire UK
Invited Speaker	<b>Whitfield K.</b> Inaugural Milk Bank Conference Brisbane
Invited Speaker	<b>Whitfield K.</b> Life Long Learning in Pharmacy Croatia (workshop presenter)
Invited Speaker	<b>Roberts JA.</b> Under Dosing of Antibiotics in the ICU - A PK/PD Approach. IDWeek, Infectious Diseases Society of America Annual Scientific Meeting, New Orleans USA, October 2016
Invited Speaker	<b>Roberts JA.</b> Antibiotic use in extracorporeal techniques. European Society of Intensive Care Medicine Annual Congress, Milan, Italy, October 2016.
Invited Speaker	<b>Roberts JA.</b> Dosing antifungals in the critically ill. European Society of Intensive Care Medicine Annual Congress, Milan, Italy, October 2016
Invited Speaker	<b>Roberts JA.</b> Antibiotic PK/PD for treatment of MDR infections. European Society of Intensive Care Medicine Annual Congress, Milan, Italy, October 2016
Invited Speaker	<b>Roberts JA.</b> Optimized PK/PD: Can It Reduce Resistance?. ASM Microbe, Boston, USA, June 2016.
Invited Speaker	<b>Roberts JA.</b> Fitting data to models. ESCMID Postgraduate Technical Workshop Population Modelling and Dose Optimization with Pmetrics and BestDose: Antimicrobial Applications. Lyon, France, April 2016
Invited Speaker	<b>Roberts JA.</b> TDM for beta lactams, sharing of centers experience, expert's vision for the future. Singapore Therapeutic Drug Monitoring Workshop. Singapore, April 2016.
Invited Speaker	<b>Roberts JA.</b> Fitting data to models. NHMRC Centre of Research Excellence REDUCE Workshop on Population Modelling and Dose Optimization, Brisbane, Australia, October 2016.
Invited Speaker	<b>Roberts JA.</b> The importance of antibiotic dosing as part of AMS. 2nd Annual Targeting and Evaluating Antimicrobial Stewardship Forum, Melbourne, Australia, June 2016.
Invited Speaker	<b>Roberts JA.</b> Renal Replacement Therapy, Critical Care Seminar, Society of Hospital Pharmacists of Australia, Brisbane, Australia, May 2016.
Invited Speaker	<b>Roberts JA.</b> Is there a role for TDM in infective endocarditis? Australian Society for Antimicrobials – Annual Scientific Meeting, Melbourne, February 2016.
Invited Speaker	<b>Roberts JA.</b> Using MIC in Predicting Clinical Outcomes of Antibiotic Treatment. Australian Society for Antimicrobials – Annual Scientific Meeting, Melbourne, February 2016.
Invited Speaker	<b>Roberts JA.</b> Approaches to funding the response to antimicrobial resistance. 3rd Queensland Forum on Antimicrobial Resistance. Brisbane, November 2016.
Invited Speaker	<b>Roberts JA.</b> Getting Systemic Therapy Right! Orthopaedic Infections – State of the Art. Wesley Hospital, Brisbane, November 2016.
Invited Speaker	<b>Roberts JA.</b> Individualised antibiotic dosing and therapeutic drug monitoring. Royal North Shore Hospital, Sydney, September 2016.
Invited Speaker	<b>Roberts JA.</b> Drug dosing in obesity. Society of Hospital Pharmacists of Australia Queensland Branch Continuing Education Series, June 2016.

## Research Publications / Presentations Summary Table

Research Group / Department	Publications		Presentations National and International	
	Journal Articles	Books and Chapters	Oral	Poster
Pharmacy	49	4	29	3



## Department of Rheumatology

The rheumatology department provides a comprehensive range of diagnostic and therapeutic services to patients with acute and chronic musculoskeletal disease. Areas of research interest include assessment and management of autoimmune inflammatory arthritis, gouty arthritis, eye conditions related to systemic arthritis and Systemic Lupus Erythematosus (SLE). Specifically, the department has a research interest in applying therapeutic drug monitoring to clinical practice with the aim of providing individualised medicine management. Gout research involves epidemiology and clinical outcomes.

The department liaises closely with other medical specialties, clinical pharmacy services, allied health and community service providers to optimise patient outcomes. There is a monthly combined renal-rheumatology clinic (vasculitis and SLE) which provides clinical outcome data and reporting.

### 2016 Research Publications

Type (Journal article / Book / Book chapter / Letter)	Publication information (RBWH staff in bold)
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Journal	Finch A and Kubler P. Management of Gout. Aust Prescr 2016; 39: 119-221 (DOI: 10.18773/austprescr.2016.047)
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