

RBWH

TWENTY

20

RESEARCH REPORT

Metro North
Health



Queensland
Government

**RESEARCH
SERVICES**

Research Services



Michael O'Sullivan

Incoming Director

Research & Implementation

The Research Services service line at RBWH encompasses critical functions to support research, such as ethics and governance, as well as a number of autonomous and cross-cutting centres and institutes, namely the Centre for Palliative Care Research and Education and Jamieson Trauma Institute. RBWH Research Services also manage cutting-edge research infrastructure, made available for the use of researchers from RBWH and our partner organisations. The Herston Imaging Research Facility marked its 5th anniversary as a feature on campus in 2020. The breadth and quality of research supported by the Facility continues to grow, with the potential to have impact on diagnosis and treatment in cancer and neurological injury and disease, among other areas.

Despite the challenges of “the pandemic year” and a shift from the usual September slot, the Herston Health Precinct Symposium went ahead and, as always, provided a broad and varied showcase of research emerging from the efforts of our dedicated researchers and their collaborators in partner institutions. The adoption of an online format made Symposium sessions available to staff inside the hospital on their desktop, an innovation that is likely to remain for future years. The Symposium awards recognise both established strengths and emerging talent in research at RBWH.

Research Ethics & Governance

The RBWH Human Research Ethics Committee (HREC) is one of 50 HRECs in Australia whose processes have been certified by the National Health and Medical Research Council to review in a wide range of research categories. These categories include clinical trials, interventional and qualitative research. The HREC can also review in the categories of research involving First Nations Peoples; Data Linkage; and Paediatric research, by virtue of having or having access to the required expertise.

The HREC has around 40 members from a variety of backgrounds whose diverse expertise allows a rigorous yet expeditious review of applications. The HREC uses a dual roster system such that members review full applications every 2nd month and low risk applications in between times. The HREC now uses a dynamic review process which will have been shown to minimise the time to approval through engagement with researchers and resolution of issues prior to the HREC meeting. The Committee uses research expertise from within and outside the RBWH to assist with reviewing low risk applications, thereby building the expertise and capacity of hospital researchers.

The mean approval times are well within the timeframe of 30 days which is accepted round Australia as the gold standard. Where review and engagement occurs efficiently, applications can often be approved prior to the HREC meeting at which they were scheduled for discussion.

The Chair of the HREC has organised the 1st and 2nd National HREC Conference, which this year will take place from 1-3 December 2021. This provides an opportunity for HREC members and researchers to hear about a wide range of research and ethics perspectives.

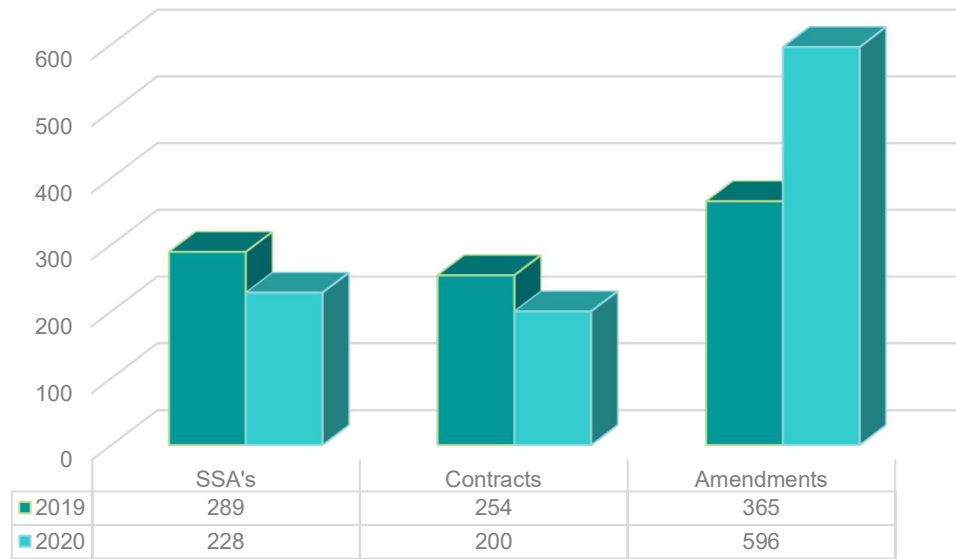
Research governance is the process whereby institutions ensure that research conducted under their auspices meet contemporary governance requirements. At the Royal Brisbane and Women's Hospital we review nearly 300 site specific assessment applications each year. Due to the breadth and depth of the research conducted at our institution, our governance reviews are often large, complex, and involve multiple institutions.

Our team includes a full-time Research Governance Manager, 0.5 FTE Research Support Officer and full-time Administration Officer. We support research by facilitating research agreements with collaborators, providing one-on-one research governance advice, as well as offer research ethics and governance clinics where we provide advice to researchers about ethics and governance requirements. We encourage parallel submission for research ethics and governance applications and work closely with the Ethics team and researchers to ensure timely processing and approval timeframes.

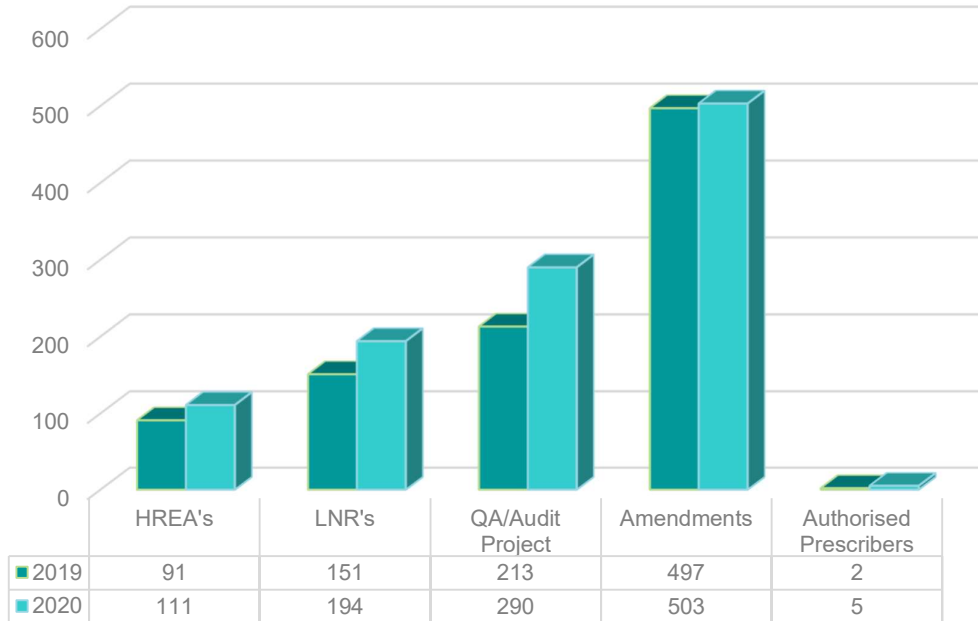
HREC Members for 2020

Name	Role	Name	Role
Dr Gordon McGurk	Chairperson	Ms Kate Lingard	Researcher
Ms Lorelle Whittaker	Layperson	Ms Alison Nixon	Researcher
Ms Lauren Milner	Layperson	Dr Pearl Swe-Kay	Researcher
Mrs Lorna Heaslop	Layperson (Retired Practitioner)	Dr Rodney Cusack	Researcher
Ms Glenys Frederiksen	Layperson	Mr Sherman Leung	Researcher
Ms Janet Crowden	Layperson	Ms Lisa Pomery	IT Expert
Ms Alexandra Zollner	Layperson	Dr Peter Glazebrook	Science Advisor
Dr Thangeswaran Rudra	Practitioner	Ms Kristi Geddes	Alternate Lawyer
Dr Himanshu Arora	Dentist	Ms Cara Black	Lawyer
Ms Erika Vardanega	Research Nurse (Clinical Trial Coordinator)	Ms Patricia Cabrera	Lawyer
Ms Ngaire Latch	NUM, Sexual Health	Ms Melissa Elliott	Physiotherapist
Dr Kylie Wall	Speech Pathologist	Ms Champika Pattullo	Pharmacist & Researcher
Adj A/Prof Angela White	Clinical Psychologist	Dr Akwasi Amoako	Practitioner
Mr John McDonnell	Layperson	Mr Shane Evans	Alternate Lawyer
Mr Sumit Desai	Layperson	Ms Sonja Read	Alternate Lawyer
A/Prof Jeremy Cohen	Practitioner	Mr Edward Hooper	Alternate Lawyer
A/Prof Glen Kennedy	Practitioner	Ms Nicole Morgan	Alternate Lawyer
Ms Natasha Roberts	Clinical Nurse / Nurse Researcher	Ms Okgi Sargent	Registered Nurse
Most Rev William Morris	Religious Representative		

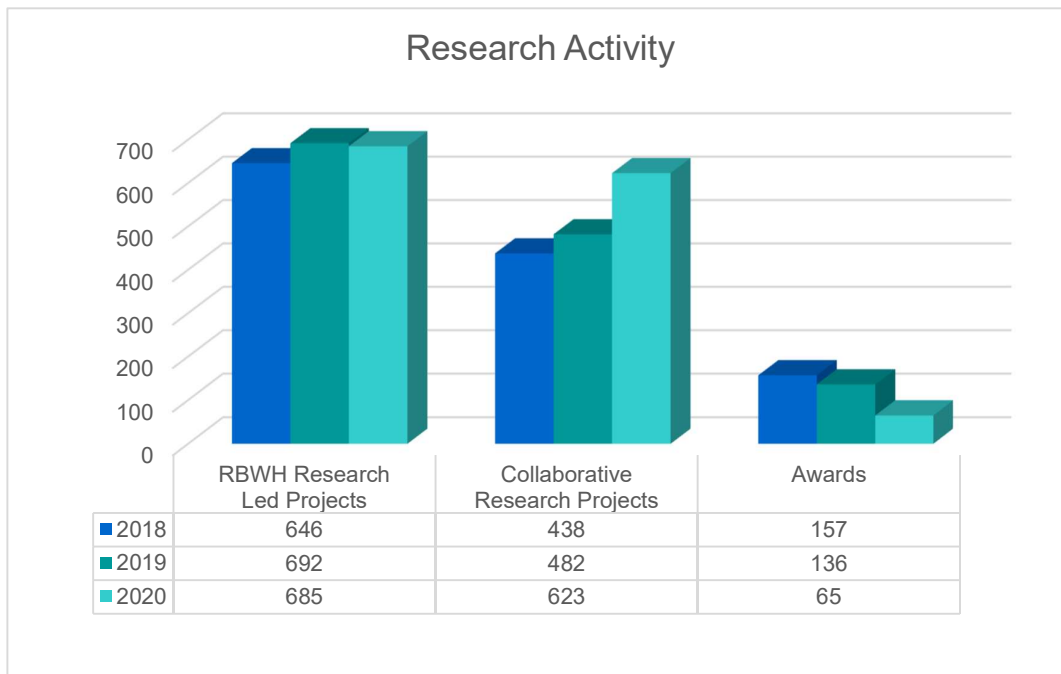
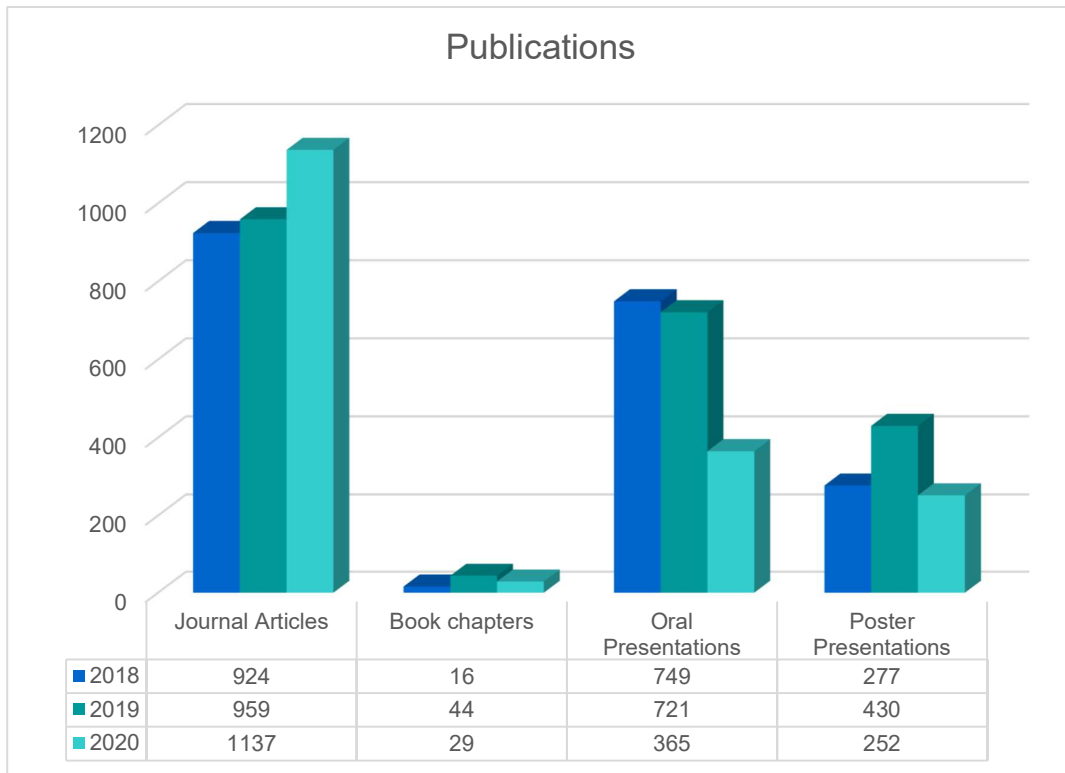
Governance Activity



HREC Activity



RBWH Research Output



Publications / Presentation Summary Table 2020

Research Group / Department	Publications		Presentations National and International	
	Journal Articles	Books and Chapters	Invited / Oral	Posters
Allied Health Professionals				
Centre for Allied Health Research	2	0	0	0
Department of Nutrition and Dietetics	31	2	3	12
Department of Occupational Therapy	12	0	4	4
Department of Physiotherapy	14	0	7	1
Department of Psychology	0	0	0	0
Department of Rehabilitation Engineering, Orthotics and Prosthetics	0	0	0	0
Department of Social Work	3	0	0	0
Department of Speech Pathology and Audiology	6	1	3	4
Cancer Care Services				
Allied Health Professions	7	1	13	1
Cancer Nursing Professorial Precinct	14	0	15	8
Haematology and Bone Marrow Transplant	40	0	9	13
Haemophilia Centre	1	0	0	0
Medical Oncology	52	0	35	48
Radiation Oncology	34	1	2	11
Critical Care and Clinical Support Services				
Emergency and Trauma Centre	21	2	10	0
Genetic Health Queensland	24	1	7	2
Hyperbaric Medicine Services	0	0	0	0
Intensive Care Services	58	1	18	0
Professor Tess Cramond Multidisciplinary Pain Centre	10	0	1	1
Skin Integrity	0	0	0	0
Internal Medicine Services				
Department of Cardiology	36	3	31	12
Department of Clinical Immunology and Allergy	0	0	0	0
Department of Clinical Pharmacology	10	0	5	0
Department of Endocrinology and Diabetes	10	0	1	0
Department of Gastroenterology and Hepatology	26	3	4	3
Department of Infectious Diseases	66	0	7	0
Internal Medicine Research & Aged Care	17	0	3	1
Kidney Health Service	40	3	16	8
Department of Neurology	58	1	7	8
Nuclear Medicine Department	10	0	6	2
Palliative and Supportive Care	0	0	0	0
Pharmacy	34	0	5	16

Research Group / Department	Publications		Presentations National and International	
	Journal Articles	Books and Chapters	Invited / Oral	Posters
Department of Rheumatology	37	0	0	0
Sexual Health and HIV Service	1	0	0	2
Department of Thoracic Medicine	12	1	8	0
Medical Imaging				
Medical Imaging	16	0	16	9
Medical Services				
RBWH Medical Services	1	0	0	0
Mental Health Services				
Metro North Mental Health Services	71	1	19	2
Nursing & Midwifery Services				
Nursing & Midwifery Research Centre	43	0	6	13
RBWH Research Services				
Centre for Palliative Care Research and Education	23	1	15	4
Herston Imaging Research Facility	13	0	10	17
Jamieson Trauma Institute	35	0	15	1
Surgical & Perioperative Services				
Department of Anaesthesia and Perioperative Medicine	32	5	24	5
Department of General Surgery – Unit 1 Breast / Endocrine	3	0	4	0
Department of General Surgery – Unit 2 Hepato-Pancreatic Biliary (HPB)	17	0	1	5
Department of General Surgery – Unit 3 Colorectal	25	0	3	0
Department of General Surgery – Unit 4 Upper Gastrointestinal / Bariatric	7	0	0	0
Department of General Surgery – Unit 5 Acute Surgical Unit (ASU)	0	0	1	0
Department of Ophthalmology	3	1	0	0
Department of Orthopaedic Surgery	17	0	0	2
Department of Otolaryngology, Head & Neck (Ear, Nose and Throat)	4	0	1	0
The Kenneth G Jamieson Department of Neurosurgery	13	0	2	0
Professor Stuart Pegg Burns Centre	4	0	2	1
Trauma Service	2	0	1	2
Department of Urology	43	0	4	11
Vascular Surgery Department & Vascular Surgery Research Group at Herston Biofabrication Institute	11	0	1	2
Women's & Newborn Services				
Grantley Stable Neonatal Unit	6	0	8	2
Obstetrics & Gynaecology	15	0	6	7
Obstetric Medicine	13	1	6	2
Perinatal Research Centre	16	0	3	7
Qld Centre for Gynaecological Cancer	18	0	0	0

RBWH PARTNERS

RBWH is in a great position (literately and figuratively) in that it has a number of Research oriented partners in or around the Herston Precinct. Onsite are QIMR and some UQ, CSIRO and Pathology Queensland facilities. Across Herston Road is one of the QUT Campuses and whilst Griffiths has no facilities on site, it has established a footprint in a number of the clinical disciplines within RBWH.

These links make RBWH ideally placed to partner in, collaborate with and set up structures for an enormous footprint in the space of translational research.

Scattered amongst this large and impressive Research Report you will notice collaborations from all these partners. Nevertheless, there is still much to be done to grow and expand these relationships.

To this aim, you will see all these partners involved in the 2020 Herston Precinct Symposium with our vision of regular Herston Precinct Grand Rounds in 2021.

RBWH & RBWH Foundation Research Advisory Committee

The 2020 Membership Included

Prof Gerard Byrne – Chair	Internal	Dr Rachel Walker	External
Dr Merrillyn Banks	Internal	Prof Claire Rickard	External
Adjunct Assoc Prof Ian Coombes	Internal	Prof Helen Healy	Internal
Prof Grant Ramm	External	Prof Jeff Lipman	Internal
Prof Robert Ware	External	Prof Sandra Capra	External
Prof Frank Gardiner	External	Prof David Paterson	Internal / External
Prof Joan Webster	External		

In 2020 the RBWH received an astonishing \$1,500,000.00 from the Private Practice Trust Fund and an incredible \$900,000.00 from the RBWH Foundation. Thus, giving the Research Advisory committee a grand total of \$2,400,000.00 towards scholarships, project grants and fellowships.

Project Grant funds were an outstanding \$984,388.00 and was split between both early career and experienced researchers. Overall a total of 73 applications were received, 41 applications for early career and 32 applications for experienced researcher. The Foundation fellowship of \$50,000.00 was awarded to three successful applications over a two-year period.

RBWH Foundation Robert and Janelle bird Post-Doctoral Fellows

Name	Title	Summary
Angela Byrnes	Using co-design to improve patient acceptability and enhance sustainability of practice change implementing early post-operative diet upgrade in colorectal surgical patients	This mixed methods research program aims to investigate and enhance sustainability of practice change implemented on general surgical wards at the RBWH to align postoperative diet upgrades with evidence-based practice (EBP) guidelines (i.e. Enhanced Recovery After Surgery guidelines(1)) in colorectal surgical patients. This research program will take a broader view of perioperative nutrition by gaining a better understanding of the patient role, and how this interacts with existing systems, providing opportunities to co-design a more patient-centred perioperative nutrition service. It will also provide a unique opportunity to reassess performance of the system two years after implementation of a locally developed guideline.
Monica Ng	A multifaceted screen for personalized precision medicine targets for glomerulonephritides - from genotype to international big data analyses	Glomerulonephritis is the second most common cause of end stage kidney disease in patients receiving renal replacement therapy. Current treatments for glomerulonephritis are limited to slowing disease progression and do not cure the underlying disease. This project will screen for potential precision medicine targets in glomerulonephritis using 3 cutting edge high-throughput methods - spatial transcriptomics, flow cytometry and multi-national epidemiological studies. Results from these studies may facilitate earlier diagnoses, enhance diagnostic accuracy, enable treatments which prevent chronic kidney disease and improve specialist care for renal transplant patients - aligning with the goals of the Queensland Health Advancing Kidney Care 2026 Initiative.
Teresa Brown	A Feasibility study to investigate taste changes post-treatment in patients with head & neck cancer and their association with genes and dietary behaviour	Patients undergoing treatment for head and neck cancer experience significant changes or loss of taste, often leading to poor oral intake, weight loss and malnutrition; which impacts treatment outcomes and quality of life. The degree of changes in taste and recovery times differ between individuals with the causes not fully understood. This project aims to assess the feasibility of the proposed study design, to determine a patient's individual taste status at baseline and how treatment impacts on their taste and dietary behaviour. This data will be used to inform a larger trial to identify genetic markers for these individual variations.

The Herston Health Precinct Symposium

The annual Herston Health Precinct Symposium was held from Monday 7th December to Friday 11th December at the RBWH conference and Education Centre. This event hosted a number of local, national and international presenters covering a vast range of topics and interests.

Highlights included:

- The Keynote sessions covering international collaborations, artificial intelligence and augmented reality, and the future of healthcare on a global scale
- Celebration of the Year of the Nurse and Midwife, with presentations and panel discussions with nursing leadership from Metro North and our partners
- Presentations featuring our existing and emerging Institutes – Jamieson Trauma Institute, Herston Biofabrication Institute and Herston Infectious Diseases Institute
- Consumer engagement sessions, including a Consumer Showcase hosted by the RBWH Foundation.

This year also saw a record number of research abstract submissions of 300, 50 of which were selected for oral presentations during the Symposium. These submissions competed for a number of awards sponsored by the RBWH Foundation, and our 2020 winners are:

This year six awards were given to staff for the following categories:

- **Dr Stephen Morrison Clinical Research Award:**
Zarnie Lwin, 'Psychosocial impacts of COVID-19 on oncology workforces: Metro versus Regional Australia'
- **Discovery and Innovation Research Award:**
Yatika Jivan, 'Enhancing outcomes in myeloid malignancies through next generation sequencing: the Queensland Myeloid Genomics Program'
- **Professor Laurie Powell Early Career Research Award:**
Darius Khadembaschi, 'Outcomes of osseointegrated implants for reconstruction of head and neck cancer patients'
- **Award for Health Practitioner Research (co-sponsored by the RBWH Foundation and the Collaborative for Allied Health Research Learning and Innovation (CAHRLI)):**
Emilie Croisier, 'The Clinical and Nutritional Implications of Pelvic Radiotherapy in Patients with Gynaecological Cancers: A Retrospective Observational Study'
- **Professor William Egerton Award for Medical Research:**
Allegra Boccabella, 'Can we ignore a pregnant person's snore?'
- **Nursing Research Award:**
Emily Larsen, 'Intravenous antimicrobial administration through peripheral venous catheters? Establishing risk profiles from an analysis of 5252 devices'
- **Translational Research Award:**
Erin Huttenmeister, 'The addition of physiotherapy to preadmission clinic enhances patient preparedness for elective surgery and is memorable'

We would like to take this opportunity to thank all those involved in bringing together this year's Symposium – without their efforts this event would not have been possible. Thank you also to all those who made an effort to attend, either in person or virtually.

Centre for Palliative Care Research and Education

The primary role of the Centre for Palliative Care Research and Education (CPCRE) is to enhance palliative care services in Queensland through research and education endeavours. To achieve these aims, CPCRE operates as a 'centre without walls', committed to building and fostering partnerships with the palliative care community in its endeavours.

Highlights of 2020:

CPCRE was successful in obtaining funding in 2018 for a world-first clinical trial "To evaluate benefits of medicinal cannabinoids for symptom relief in cancer patients receiving palliative care". The trial led by Prof Janet Hardy (CPCRE Clinical Research Program Leader) is progressing well, with 225 patients recruited to date, at 4 centres across the Brisbane metropolitan region with a fifth site to join in 2021. As a consequence of the strong community support for medicinal cannabis and the commonly held beliefs in its benefit, we have been able to recruit a large number of patients within a relatively short time period. We hope to complete the first study, MedCan-1 (CBD vs placebo) by the end of 2021. CPCRE staff have continued collaborative research projects in 2020. Research projects are multi-disciplinary and are across institutions (within Queensland and across the country), and results have been published in national & international peer reviewed publications. CPCRE staff hold appointments on state, national and international Palliative Care/Oncological & Nursing, Medical and Indigenous advisory boards/reference groups.

CPCRE education activities include: The General Practice Palliative Care Education Program; The Program of Experience in the Palliative Approach; The Evidence Based Palliative Care Strategy; The Queensland Palliative Care Research Group & Workforce Development Programs. The Centre disseminates pertinent palliative care education and research information to health professionals via: the CPCRE Website, CPCRE Newsletter (quarterly), CPCRE Calendar (biannually), Monthly E-Bulletins, the Annual Research Conference & the Annual Update Symposium (topic rotates 3 yearly between general medicine, oncology and supportive care); the Annual Master Class and the Annual Nurse Practitioner Symposium.

Benefits for clinical practice:

The Centre's work focuses on:

- Developing the capacity of the palliative care workforce to provide quality palliative care
- Improving the links between research and practice in palliative care
- Undertaking research to enhance the quality of palliative care
- Providing information which supports the delivery of palliative care services

Research Awards and Achievements

Recipient (RBWH staff in bold)	Award	Event
Patsy Yates	Awarded a Member (AM) in the General Division of the Order of Australia for significant service to tertiary education, to cancer and palliative care nursing, and to medical research	Australia Day 2020 Honours List, 08/06/2020
Janet Hardy	An open label pilot study of cannabinoid medications for symptom relief in advanced cancer patients (Awarded one of top 3 abstracts in conference)	2020 European Association for Palliative Care Conference

Research Grants Awarded in 2020

Investigator Names (RBWH staff in bold)	RBWH Departments / Research Groups	Research Project Title	Granting Body	Total Awarded	Year/s
Bradford, N., Ekberg, S., Brain, D., Yates, P. & Hassall, T.	Centre for Palliative Care Research and Education	Childhood brain cancer survivorship and palliative care effects on family functioning (CASPER)	Children's Health Foundation Queensland	\$400,056	2020–2025

Investigator Names (RBWH staff in bold)	RBWH Departments / Research Groups	Research Project Title	Granting Body	Total Awarded	Year/s
Yates, P. , Liu, W. & Cockerell, R.	Centre for Palliative Care Research and Education	Evaluation of the case management model of support (CMMS) for ovarian cancer care	Ovarian Cancer Australia Ltd	\$147,390	2020 – 2021
Beesley, V., Neale, R., Turner, J., Yates, P. , Wyld, D., Chan, R. & Gordon, L.	Centre for Palliative Care Research and Education	PRoCESS: Pancreatic cancer Relatives Counselling and Education Support Service trial	National Health and Medical Research Council, Medical Research Future Fund	\$801,229	2020 – 2023
Willmott, L., White, B. & Yates, P.	Centre for Palliative Care Research and Education	Services to develop and provide online voluntary assisted dying participating practitioner training	Department of Health (WA)	\$996,165	2020 – 2023
DeLaforce, A., Duff, J., Munday, J., Hardy, J. , Farmer, S., Miller, K., Glover, L., Ansell, G., Corney, C., Hurst, C., Taffaha, H	Centre for Palliative Care Research and Education	A theoretically informed approach to support the implementation of preoperative anaemia and iron deficiency screening, evaluation and management pathways (PAIDSEMP): a type 2 hybrid-effectiveness study	Mater Foundation	\$50,000	2020-2021

Current RBWH Department / Research Group Led Research Activity

Lead Investigator Name (RBWH staff in bold)	Other Study Investigators (RBWH staff in bold)	Research Project Title	Number of Patients Recruited in 2020	Total number of Patients Recruited
Hardy, J., Yates, P.	Hardy, J. , Good, P., Lintzeris, N., Martin, J., Yates, P. , Chye, R., Haywood, A., Olsen, R.	Medicinal cannabinoids to relieve symptom burden in the palliative care of patients with advanced cancer	MedCan1=46 MedCan2=24 Inflam=17 Post Trial=15	MedCan1=109 MedCan2=40 Inflam=20 Post Trial=16
Yates, P.	Yates, P. , Mitchell, G., Currow, D., Eagar, K., Edwards, H., Gardner, G., Willmott, L., Bonner, A., Clark, R., Tieman, J.	Centre for Research Excellence in End of Life Care	-	-
Yates, P.	Yates, P. , Carter, R.	TrueNTH Solutions: an integrated multi-component intervention to improve the lives of men with prostate cancer in Australia	-	-
Yates, P.	Yates, P. , Alexander, K., Miaskowski, C., Chan, R., McCarthy, A., McPhail, S., Wyld, D., Skerman, H.	A sequential multiple assignment randomized trial (SMART) of nursing interventions to reduce pain associated with chemotherapy induced peripheral neuropathy	72 patients recruited from RBWH in 2020 (154 patients recruited from RBWH 2018-2020)	396 patients
Hardy, J.	Good, P., Sullivan, K., Woodford, N., Hardy, J.	An open label pilot study of oral water soluble contrast (Gastrografin) in addition to conservative management for the resolution of malignant bowel obstruction in adult patients	0	20

Lead Investigator Name (RBWH staff in bold)	Other Study Investigators (RBWH staff in bold)	Research Project Title	Number of Patients Recruited in 2020	Total number of Patients Recruited
Hardy, J.	Good, P., Hardy, J. , Philip, J., Weil, J., Crawford, G., McNeil, R., Yates, P.	A randomised, controlled, double blind study of olanzapine versus haloperidol in patients with cancer and nausea not related to anticancer therapy. A pilot study (Nausea 4 study)	1	4
Hardy, J.	Richard, E., Mitchell, G., Nikles, J., Good, P., Senior, H., Steadman, K., Hardy, J.	Oral pilocarpine tablets for xerostomia	7	7
Hardy, J.	Good, P., Hardy, J.	Assessing physical activity as an outcome of pain management in patients with advanced cancer	5	20
Hardy, J.	Hardy, J. , Yates, P. , Miakowski, C., Good, P., Skerman, S.	Assessing the influence of genetic variation on symptom clusters in men with castrate resistant prostate cancer	0	63

Collaborative Research Activity Involving RBWH Department / Research Group

Lead Investigator Name (RBWH staff in bold)	Other Study Investigators (RBWH staff in bold)	Research Project Title	Number of Patients Recruited in 2020	Total number of Patients Recruited
Danby, S., Ekberg, S., Rendle-Short, J., Yates, P. , Herbert, A., Bradford, N., Bluebond-Langner, M.	Yates, P.	Extraordinary yet mundane talk: children navigating palliative care	-	-
Bradford, N., Yates, P. , Chan, R. & Tjondronegoro, D.	Yates, P.	RESPONse: Remote Symptom Management in Paediatric Oncology	-	-
Juraskova, I., Butow, P., Laidsaar-Powell, R., Boyle, F., Yates, P. , Schofield, P., Kay, J. & Costa, D.	Yates, P.	Empowering the clinician-patient-carer TRIO: RCT of novel online education modules to facilitate effective family carer involvement in oncology	-	-
Hoy, W., Healy, H., Connelly, L., Mitchell, G., Panaretto, K., Endre, Z., Coombes, J., Gobe, G., Bonner, A., Fassett, R., White, B., Douglas, C. , Nelson, C., Leon, D., Waugh, D., Kulkarni, H., Tan, K.-S., Brown, M., Jose, M., Yates, P.	Yates, P.	Chronic Kidney Disease Centre for Research Excellence	-	-

Research Publications

Journal Articles

- Bradford, N., Walker, R., Cashion, C., Henney, R. & **Yates, P.** Do specialist youth cancer services meet the physical, psychological and social needs of adolescents and young adults? A cross sectional study. *European Journal of Oncology Nursing*, (2020), 44, 101709
- Green, T., Bonner, A., Teleni, L., Bradford, N., Purtell, L., Douglas, C., **Yates, P.**, MacAndrew, M., Dao, H. Y. & Chan, R.J. Use and reporting of experience-based codesign studies in the healthcare setting: a systematic review. *BMJ Quality & Safety*, (2020), 29(1), 64-76
- Kirby, E.R., Kenny, K.E., Broom, A.F., Oliffe, J.L., Lewis, S., Wyld, D.K., **Yates, P.M.**, Parker, R.B. & Lwin, Z. Responses to a cancer diagnosis: a qualitative patient-centred interview study. *Supportive Care in Cancer*, (2020), 28(1), 229-238

4. Ranse, K., Delaney, L., Ranse, J., Coyer, F. & **Yates, P.** End-of-life care content in postgraduate critical care nursing programs: Structured telephone interviews to evaluate content-informing practice. *Australian Critical Care*, (2020), 33(2), 181-186
5. Ekberg, S., Herbert, A., Johns, K., Tarrant, G., Sansone, H. **Yates, P.**, Danby, S. & Bradford, N.K. Finding a way with words: Delphi study to develop a discussion prompt list for paediatric palliative care. *Palliative Medicine*, (2020), 34(3), 291-299
6. Beesley, V.L., Turner, J., Chan, R.J., **Yates, P.**, Gordon, L.G., Burge, M., Eastgate, M.A., Staneva, A.A., Northfield, S., Beebe, H., Wyld, D.K. & Neale, R.E. Supporting patients and carers affected by pancreatic cancer: A feasibility study of a counselling intervention. *European Journal of Oncology Nursing*, (2020), 46, 101729
7. Willmott, L., White, B., **Yates, P.**, Mitchell, G., Currow, D.C., Gerber, K. & Piper, D. Nurses' knowledge of law at the end of life and implications for practice: A qualitative study. *Palliative Medicine*, (2020), 34(4), 524-532
8. Ekberg, S., Danby, S., Herbert, A., Bradford, N. & **Yates, P.** Affording opportunities to discuss deterioration in paediatric palliative care consultations: a conversation analytic study. *BMJ Supportive & Palliative Care*, (2020), 10:e13
9. Ogle, T., Alexander, K., Miaskowski, C. & **Yates, P.** Systematic review of the effectiveness of self-initiated interventions to decrease pain and sensory disturbances associated with peripheral neuropathy. *Journal of Cancer Survivorship*, (2020), 14(4), 444-463
10. Chan, R.J., Teleni, L., McDonald, S., Kelly, J., Mahony, J., Ernst, K., Patford, K., Townsend, J., Singh, M. & **Yates, P.** Breast cancer nursing interventions and clinical effectiveness: a systematic review. *BMJ Supportive & Palliative Care*, (2020), 10(3), 276-286
11. Bowers, A.P., Chan, R.J., Herbert, A. & **Yates, P.** Estimating the prevalence of life-limiting conditions in Queensland for children and young people aged 0-21 years using health administration data. *Australian Health Review*, (2020), 44(4), 630-636
12. McHugh, M.D., Aiken, L.H., Windsor, C., Douglas, C. & **Yates, P.** Case for hospital nurse-to-patient ratio legislation in Queensland, Australia, hospitals: an observational study. *BMJ Open*, (2020), 10(9), e036264
13. **Yates, P.**, **Hardy, J.**, Clavarino, A., Fong, K.M., Mitchell, G., Skerman, H., Brunelli, V. & Zhao, I. A randomized controlled trial of a non-pharmacological intervention for cancer-related dyspnea. *Frontiers in Oncology*, (2020), 10(2176):591610
14. Huang, Y.-L., **Yates, P.**, Thorberg, F.A. & Wu, C.-J. Application of social ecological model to Taiwanese end-of-life communication and healthcare planning. *Collegian*, (2020), 27(5), 477-486
15. King, M., Agar, M., Currow, D., **Hardy, J.**, Fazekas, B., McCaffery, N. Assessing quality of life in palliative care settings: head to head comparison of four patient-reported outcome measures "(EORTC QLQ-C15-PAL, FACIT-Pal, FACIT-Pal14, FACT-G7)". *Supportive Care in Cancer*, (2020), 28(1), 141-153. DOI: 10.1007/s00520-019-04754-9. Epub 2019, Apr 16
16. Delaforce, A., Duff, J., Munday, J., **Hardy, J.** Overcoming barriers to evidence -based patient blood management: a restricted review. *Implementation Science*, (2020), 15(6). DOI.org/10.1186/s13012-020-0965-4
17. **Hardy, J.**, Bundock, D., Cross, J., Gibbons, K., Pinkerton, R., Kindle, K., Good, P., Philip, J. Prevalence of QTc prolongation in patients with advanced cancer receiving palliative care – a cause for concern? *Journal of Pain and Symptom Management*, (2019) Dec 19. pii: S0885-3924(19)31061-9. DOI: 10.1016/j.jpainsymman.2019.12.356. [Epub ahead of print]
18. **Hardy, J.**, Pinkerton, R., Mitchell, G. Stringent controls of Opioids: Sound Public Health measures, but a step too far in Palliative Care? *Current Oncology Reports*, (2020), Mar 13; 22(4), 34. DOI: 10.1007/s11912-020-0900-5
19. Olsen, R., Smith, A., Good, P., Neate, E., Hughes, C., **Hardy, J.** Emotionally reflexive labour in end-of-life communication. *Social Science & Medicine*, (2020), Mar 14, 112928. DOI: 10.1016/j.socscimed.2020.112928. Online ahead of print

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20. **Hardy, J.**, Haywood, A., Gogna, G., Martin, J., **Yates, P.**, Greer, R., Good, P. Oral medicinal cannabinoids to relieve symptom burden in the palliative care of patients with advanced cancer: a double-blind, placebo controlled, randomised clinical trial of efficacy and safety of 1:1 delta-9-tetrahydrocannabinol (THC) and cannabidiol (CBD). *Trials*, (2020), 21, 611. <https://doi.org/10.1186/s13063-020-04541-6>
 21. Delaforce, A., Galeel, L., Poon, E., Hurst, C., Duff, J., Munday, J., **Hardy, J.** Perioperative anemia screening and treatment practices in patients having total joint replacement surgery: a retrospective, observational audit. *Journal of Blood Medicine*, (2020), 11, 259-265
 22. Delaforce, A., Duff, J., Munday, J. & **Hardy, J.** Perioperative anaemia and iron deficiency screening, evaluation and management: Barrier identification and implementation strategy mapping. *Journal of Multidisciplinary Healthcare*, (2020), 13:1759-1770
 23. Haywood, A., Sandford, A., Rickett, K., Good, P., Khan, S., **Hardy, J.** Corticosteroids for the management of cancer-related fatigue in adults with advanced cancer (Protocol). *Cochrane Database of Systematic Reviews*, (2020), Issue 11. Art. No.: CD013782. DOI: 10.1002/14651858.CD013782
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Book Chapters / Letters

1. Rosenberg, J.P. & **Yates, P.** Considering end-of-life care. In Crisp, J., Douglas, C., Rebeiro, G. & Waters, D. (Eds) *Potter & Perry's Fundamentals of Nursing – ANZ edition (6th Ed.)*, (2020). Mosby Elsevier: Sydney, pp. 1361-1376
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Conference Presentations – Invited Speaker, Oral and Poster

Invited Speaker

1. **Yates, P.** Welcome from the President of the International Society of Nurses in Cancer Care. 52nd Congress of the International Society of Paediatric Oncology (SIOP 2020), virtual conference, 15th October 2020
 2. **Yates, P.** (Panel Member) The challenges of prolonging life. Australian Nursing & Midwifery Federation (South Australia Branch) Annual Professional Conference, virtual conference, 15th October 2020
 3. Beesley, V.L., Turner, J., Chan, R.J., **Yates, P.**, Gordon, L.G., Burge, M., Eastgate, M.A., Wyld, D.K. & Neale, R.E. Supporting patients with pancreatic cancer and their carers: Lessons from a nurse-led telephone counselling pilot. COSA's 47th Annual Scientific Meeting, virtual conference, 11th-13th November 2020
 4. Davidson, P., **Yates, P.** & Phillips, J. Panel Session: Positioning palliative care nursing as more than a social good. Palliative Care Nurses Australia Conference, virtual conference, 22nd November 2020
 5. **Yates, P.** ACN End of Life Care Policy Chapter. Palliative Care Nurses Australia Conference, virtual conference, 23rd November 2020
 6. **Yates, P.** (Keynote) Achieving our aspirations to transform global health: The essential contribution of nursing now and in the future. 10th Hong Kong International Nursing Forum, virtual conference, 7th December 2020
 7. **Hardy, J.** Medicinal cannabis – research evidence. ANZSPM, virtual conference, 17th-19th September 2020, (plenary)
 8. **Hardy, J.**, Olsen, R., Huggett, G., Amirahbadi, N., Kearney, A., Good, P. Trials of medicinal cannabis in patients with advanced cancer – our experience to date. ANZSPM, virtual conference, 17th-19th September 2020, (oral presentation)
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Oral Presentations

1. Neate, E., Olson, R., **Hardy, J.**, Good, P. How do healthcare professionals communicate with patients, their caregivers and other health professionals about death and dying? A qualitative study. European Association for Palliative Care, virtual conference, 7th-9th October 2020
 2. Amirahbadi, N., **Hardy, J.**, Richard, E., Vora, R., Good, P. Assessing patient satisfaction with intranasal trans-mucosal Sphenopalatine Ganglion (SPG) block as a treatment option for the management of headaches and facial pain in palliative patients: A prospective cohort study. ANZSPM, virtual conference, 17th-19th September 2020
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3. **Hardy, J.**, Olsen, R., Huggett, G., Amirahbadi, N., Kearney, A., Good, P. Trials of medicinal cannabis in patients with advanced cancer – our experience to date. ANZSPM, virtual conference, 17th-19th September 2020, (oral presentation)

 4. **Hardy, J.** Medicinal cannabis – research evidence. ANZSPM, virtual conference, 17th-19th September 2020, (plenary)

 5. Good, P., Huggett, G., Greer, R., **Hardy, J.** An open label pilot study of cannabinoid medications for symptom relief in advanced cancer patients. 11th World Research Congress online of the European Association for Palliative Care, virtual conference, 7th-9th October 2020. (Awarded “one of Top 3 in category”)

 6. Good, P., Huggett, G., Spitzer, M., **Hardy, J.** Challenges in undertaking trials of medicinal cannabis in Australia. 11th World Research Congress online of the European Association for Palliative Care, virtual conference, 7th-9th October 2020

 7. Fazekas, B., **Hardy, J.**, Brown, L., Sidhu, M., Cheah, S., Currow, D. Measuring safety – the importance of baseline assessment: results from the Ketamine study. 11th World Research Congress online of the European Association for Palliative Care, virtual conference, 7th-9th October 2020
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Poster Presentations

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1. Molassiotis, A., Brown, T., Cheng, H.L., Byrnes, A., Chan, R., Wyld, D., Eastgate, M., **Yates, P.**, Marshall, A., Fichera, R., Isenring, E., To, K.F., Ko, P.S., Lam, W., Lam, Y.F., Au, L.F. & Lo, S.-K.,R. (2020) The effects of a family-centered psychosocial-based nutrition intervention in patients with advanced cancer: The PiCNIC2 pilot randomised controlled trial. COSA's 47th Annual Scientific Meeting, virtual conference, 11th-13th November 2020

 2. Bradford, N., Bowers, A., Chan, R., Walker, R., Herbert, A., Condon, P., Cashion, C. & **Yates, P.** Documentation of symptoms in children newly diagnosed with cancer highlights the need for routine assessment using self-report. COSA's 47th Annual Scientific Meeting, virtual conference, 11th-13th November 2020

 3. Neate, E., Olson, R., **Hardy, J.**, Good, P. How do healthcare professionals communicate with patients, their caregivers and other health professionals about death and dying? A qualitative study. European Association for Palliative Care, virtual conference, 7th-9th October 2020

 4. Amirahbadi, N., **Hardy, J.**, Richard, E., Vora, R., Good, P. Assessing patient satisfaction with intranasal trans-mucosal Sphenopalatine Ganglion (SPG) block as a treatment option for the management of headaches and facial pain in palliative patients: A prospective cohort study. ANZSPM, virtual conference, 17th-19th September 2020
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Other Presentations

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1. **Yates, P.** Palliative Care Education: Building our Workforce. Asia Pacific Hospice Palliative Care Network Webinar Series, 23rd March 2020

 2. Still, J. (Producer), Gent, L., Krishnasamay, M., & **Yates, P.** (2020, May 12). International Nurses Day Q&A with CNSA [Video interview]. <https://www.facebook.com/CNSA.ORG/videos/261876011622815/?v=261876011622815>

 3. **Yates, P.** Nursing the world to health: Insights in this International Year of the Nurse and Midwife. 21st Annual Lyceum Lecture, The Tattersall's Club Brisbane, 20th October 2020

 4. **Yates, P.** Assessment in the context of cancer care. Public Lecture, Faculty of Nursing, Universitas Indonesia, Virtual, 5th November 2020

 5. **Yates, P.** Improving patient outcomes and experience of care. 4th Jinling International Nursing Forum, Nanjing Medical University (NMU), Jiangsu Province, P.R. China, Virtual, 7th November 2020

 6. **Yates, P.** Palliative care in cancer care. The ISNCC Continulus Global Classroom, Virtual, 19th November 2020

 7. **Yates, P.** ELDAC Overview. ELDAC Showcase 2020, Virtual, 2nd December 2020

 8. **Hardy, J.**, Olson, R., Nixon, A., & Good, P. Cost and convenience: What underpins decisions to decline participation in a medicinal cannabis RCT for palliative care patients with advanced cancer? ANZSPM Conference, Virtual, 17th-19th September 2020
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Published Extracts

1. Beesley, V.L., Turner, J., Chan, R.J., **Yates, P.**, Gordon, L.G., Burge, M., Eastgate, M.A., Wyld, D.K. & Neale, R.E. (2020) Supporting patients with pancreatic cancer and their carers: Lessons from a nurse-led telephone counselling pilot. *Asia-Pacific Journal of Clinical Oncology*, 16(S8), 61
 2. Molassiotis, A., Brown, T., Cheng, H.L., Byrnes, A., Chan, R., Wyld, D., Eastgate, M., **Yates, P.**, Marshall, A., Fichera, R., Iсенring, E., To, K.F., Ko, P.S., Lam, W., Lam, Y.F., Au, L.F. & Lo, S.-K.,R. (2020) The effects of a family-centered psychosocial-based nutrition intervention in patients with advanced cancer: The PiCNIC2 pilot randomised controlled trial. *Asia-Pacific Journal of Clinical Oncology*, 16(S8), 114
 3. Bradford, N., Bowers, A., Chan, R., Walker, R., Herbert, A., Condon, P., Cashion, C. & **Yates, P.** (2020) Documentation of symptoms in children newly diagnosed with cancer highlights the need for routine assessment using self-report. *Asia-Pacific Journal of Clinical Oncology*, 16(S8), 188
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Non-Refereed Publications

1. Mitchell, G.K., Willmott, L., White, B.P., Piper, D., Currow, D.C. & **Yates, P.** Letter (2020) A perfect storm: fear of litigation for end of life care. *Medical Journal of Australia*, 212(3), 140-140.e1
 2. **Yates, P.** (2020) Hope at the end of life: The essential role of nurses. *ICN International Nurses Day 2020 Resources and Evidence*, 27-29
 3. Button, E., Northfield, S., Smith, M., Wyld, D., Nasato, G. & **Yates, P.** (2020) Letter. How do cancer care services in Australia take care of their patients when they require emergency care? We need more evidence. *Australian Health Review*, 44(3), 497-498
 4. **Yates, P.**, Charalambous, A., Fennimore, L., Nevidjon, B., So, W.K.W., Suh, E.E., Woodford, E. & Young, A. (2020) Cancer nursing's potential to reduce the growing burden of cancer across the world. *Oncology Nursing Forum*, 47(6), 625-627
 5. **Yates, P.**, Charalambous, A., Fennimore, L., Nevidjon, B., So, W.K.W., Suh, E.E., Woodford, E. & Young, A. (2020) Editorial. Position statement on cancer nursing's potential to reduce the growing burden of cancer across the world. *Cancer Nursing*, 43(6), 433-435
 6. Downing, J., Ben Gal, Y., Daniels, A., Kiwanuka, R., Lin, M., Ling, J., Marston, J., Mitrea, N., Nkosi, B., Sithole, Z., Szylił, R. & **Yates, P.** (2020) "Leaving No One Behind": Valuing & Strengthening Palliative Nursing in the time of COVID19. In De Lima, L., Pettus, K., Downing, J., Connor, S., Marston, J. (Eds.), *Palliative Care and Covid-19 Series – Briefing Notes Compilation*, 65-67. Houston: IAHPCC Press. <https://hospicecare.com/what-we-do/publications/palliative-care-and-covid-19-series-briefing-notes-compilation/>
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Herston Imaging Research Facility

The Herston Imaging Research Facility (HIRF) is a dedicated facility for human imaging research on the RBWH campus. The facility houses one of only four combined PET and MR scanners in Australia, as well as a 3T Prisma MRI scanner and a PET/CT scanner, along with supporting infrastructure. HIRF is operated as a unit of RBWH, using RBWH radiographers and nuclear medicine technologists to operate the scanners. Being a stand-alone facility separate to the clinical radiology and nuclear medicine departments, HIRF offers greater access and booking certainty to imaging scanners than is possible in a busy clinical environment. As well as offering a pleasant environment for research participants, HIRF reduces the research load on clinical scanners, reducing wait-list times.

HIRF is an alliance of four partners: Queensland University of Technology, University of Queensland, Metro North Hospital and Health Service, and Queensland Institute of Medical Research-Berghofer. Researchers from all of the partners, as well as external institutions, collaborate on imaging research at HIRF. It is involved in multi-centre national and international trials, commercial work and clinical trials. HIRF also collaborates closely with the radiopharmaceutical laboratory of the nuclear medicine department at RBWH to make available a wide variety of PET tracers for researchers to use at HIRF.

The research output given below is focussed on research involving or lead by the RBWH, but HIRF as a research service has contributed to outcomes for our major partners as well, including an additional 96 journal articles and 2 invited presentations

Highlights of our research from 2020 include:

This year was a difficult one for research, with a suspension due to COVID, and a reluctance among research participants to volunteer. Despite these challenges, HIRF has made significant contributions to a large number of projects, producing high quality outputs. The research projects are focused on a variety of questions – such as more accurate diagnoses, better patient monitoring and therapy outcomes. The researchers work with a broad range of participants, from 6 to 86+ years old. Fostering these strong collaborative relationships with the partners and other external research institutes means that the quality of research and research productivity from HIRF will only grow in the future.

During 2020 we had 61 research projects in recruitment including several clinical trials. Among them were:

- Prediction of childhood brain outcomes infants born preterm using neonatal MRI and concurrent clinical biomarkers
- A double-blind, randomised, placebo-controlled Phase 2 study with a crossover treatment period to evaluate ATA18 in subjects with progressive multiple sclerosis
- The safety and benefit of Lutetium-177 PSMA radionuclide treatment in metastatic prostate cancer
- Aphasia recovery with music exposure
- A MRI approach to investigating blood brain barrier dysfunction in brain injury and subarachnoid haemorrhage patients as a predictor of patient outcome
- Identifying chemotherapy associated neurocognitive impairment in acute myeloid leukemia

Research Grants Awarded in 2020

Investigator Names (RBWH staff in bold)	RBWH Departments / Research Groups	Research Project Title	Granting Body	Total Awarded	Year/s
McMahon , Brownsett, Gillander, Copland, de Silva , Burfi , Berry	HIRF, STARS, SLP.	Improving reliability and validity of presurgical language mapping	RBWH Foundation	\$46,831	2020-2021
Dissanayaka , Byrne , O'Sullivan, Adam, McMahon , Bakker	UQ, HIRF, Neurology	Uncovering a novel therapeutic target to reduce dementia risk in Parkinson's disease (TRIP study)	RBWH Foundation	\$50,000	2020-2021

Investigator Names (RBWH staff in bold)	RBWH Departments / Research Groups	Research Project Title	Granting Body	Total Awarded	Year/s
Ma, De Zubicaray, Wall, McMahon , Laing, Walker, Kahler, Coyne, Alexander, Tomlinson, Pattie, Biggs, Morrison	QUT, Uniting Health, QUT	A prospective study of language impairment and recovery following surgery for brain tumours	WRI	\$75,638	2020-2021
F Nasrallah, D Reutens , Chandra, Walsham, Russell, Bhuta, J Ross, C Winter , Senthuran, J Bellapart	UQ, Neurology, Neurosurgery, ICU	PREDICT-TBI - PREDiction and Diagnosis using Imaging and Clinical biomarkers Trial in Traumatic Brain Injury: the value of Magnetic Resonance Imaging	MRFF	\$1,765,000	2020-2026

Current RBWH [Department / Research Group Led Research Activity](#)

Lead Investigator Name (RBWH staff in bold)	Other Study Investigators (RBWH staff in bold)	Research Project Title	Number of Patients Recruited in 2020	Total number of Patients Recruited
Po-Ling Inglis	Zarnie Lwin (PCH), Paul Thomas	KB004 - A phase I safety and bioimaging trial of KB004 in patients with glioblastoma	2	3
Kowsi Murugappan	Paul Thomas, Owen Ung, Ben Green, Clement Wong, Liz Kenny; Karin Steinke , Colleen Niland (UQ), Sunil Lakhani (UQ)	PETAL - Improving the precision of clinical staging of the axilla	4	8
Ryan Sommerville	Charles Lin, Jennifer Sommerville, Paul Thomas, Brett Hughes, Gishan Ratnayake, Chris Oosthuizen, Catherine Barnett, Ashvini Abeysekara, Jason Papacostas, Touraj Taheri	Perineural Spread - Utility of High-Resolution MRI in Evaluating Perineural Spread in Head and Neck Cancers	2	13
Ashleigh Scott	Glen Kennedy , Katie McMahon (HIRF, QUT), Olivier Salvado (CSIRO), Ada Lo, Kate Thompson	MINERAL – Magnetic Resonance imaging and quantitative susceptibility mapping (MRI-QSM) of brain iron to identify chemotherapy-associated neurocognitive impairment (CANI) in Acute Myeloid Leukaemia (AML)	9	17
David Fielding	Dr Farzad Bashirzadeh, Dr Karin Steinke, Dr Morgan Windsor, Dr Paul Thomas , Andreas Moller (QIMR-B)	PET/CT First in the investigation of pulmonary nodules: A prospective study of up-front PET/CT in guiding diagnostic interventions in investigating pulmonary nodules suspicious for lung cancer	23	89
Jason Butler	Cameron Curley; Elango Subramonia Pillai; Glen Kennedy; Kirk Morris; Nicholas Weber; Simon Durrant; Siok Tey	ACE-LY-308 - A Phase 3, Randomized, Double blind, Placebo controlled, Multicenter Study of BR alone Versus in Combination with Acalabrutinib (ACP 196) in Subjects with Previously Untreated Mantle Cell Lymphoma	0	3

Lead Investigator Name (RBWH staff in bold)	Other Study Investigators (RBWH staff in bold)	Research Project Title	Number of Patients Recruited in 2020	Total number of Patients Recruited
Nicholas Weber	Ashleigh Scott; Cameron Curley; Elango Subramonia Pillai; Jason Butler; Kirk Morris	BGB-3111-304 - An International, Phase 3, Open-label, Randomized Study of BGB 3111 Compared with Bendamustine plus Rituximab in Patients with Previously Untreated Chronic Lymphocytic Leukemia or Small Lymphocytic Lymphoma	0	3
Jason Butler	Ashleigh Scott; Cameron Curley; Elango Subramonia Pillai; Kirk Morris; Nicholas Weber	Plimath - A multi-centre Phase II study to determine the response kinetics, safety and efficacy of pembrolizumab as frontline treatment of patients with Hodgkin Lymphoma considered unsuitable for ABVD	1	5
John Atherton		SUCCOUR - Strain sURveillance during Chemotherapy for improving Cardiovascular OUcomes	5	6
Jerry Van de Pol, John Kinyanjui	Luca Daniele, Macy Lu	ACL- Prospective assessment of graft incorporation and ligamentization after Anterior Cruciate Ligament (ACL) reconstruction using two different hamstring tendon fixation techniques	13	36
Jeffrey Goh, David Pattison	Michael Hofman (Co-ordinating PI), David Pattison, Aneta Suder, Matthew Burge, David Wyld	TheraP: A randomised phase 2 trial of 177Lu-PSMA617 theranostic versus cabazitaxel in progressive metastatic castration resistant prostate cancer	0	44 at RBWH 290 – all sites
Elizabeth Vujcich	Jason Brown, Michelle Donovan, Noah Betar	ELATE- Early versus Late Ablative CO2 Fractional Laser Treatment Evaluation	3	3
John Younger	Joseph Selvanayagam	Cardiac CMR -Cardiac Magnetic Resonance (GUIDEd) management of mild-moderate Heart Failure	3	34
Jeffrey Goh, David Pattison	Louise Emmett (St Vincent's Hospital), Ian Davis (ANZUP), Andrew Martin (NHMRC), Martin Stockler (NHMRC), Kate Ford (NHMRC)	ENZA-P: A randomised phase II trial using PSMA as a therapeutic agent and prognostic indicator in men with metastatic castration-resistant prostate cancer treated with enzalutamide (ANZUP 1901)	1	1
Andrew Mallett		STAGED PKD: Multicenter, randomized, double-blind, placebo-controlled two stage study to characterize the efficacy, safety, tolerability and pharmacokinetics of GZ/SAR402671 in patients at risk of rapidly progressive Autosomal Dominant Polycystic Kidney Disease (ADPKD)	8	12

Lead Investigator Name (RBWH staff in bold)	Other Study Investigators (RBWH staff in bold)	Research Project Title	Number of Patients Recruited in 2020	Total number of Patients Recruited
Robyn Cheuk	Michelle Grogan, Lizbeth Kenny, Philip Chan, Charles Lin, Po-Ling Inglis, Jacqui Keller	AZTEC: A randomised phase II trial comparing the efficacy of single fraction or multi-fraction SABR (Stereotactic ablative body radiotherapy) with Atezolizumab in patients with advanced Triple negative breast Cancer (AZTEC)		
Zarnie Lwin	Po-Ling Inglis, Ben Chua, Catherine Bettington	NUTMEG: A Randomised phase II study of nivolumab and temozolomide vs temozolomide alone in newly diagnosed elderly patients with glioblastoma	2	7
David Fielding		NBI: Surveillance of Head and Neck Cancer patients 3-5 years post treatment using a single NBI procedure and CT chest with computer aided diagnostics	1	12

Collaborative Research Activity Involving RBWH Department / Research Group

Lead Investigator Name (RBWH staff in bold)	Other Study Investigators (RBWH staff in bold)	Research Project Title	Number of Patients Recruited in 2020	Total number of Patients Recruited
Eamonn Eeles (RBWH / TPCH)	Jurgen Fripp (CSIRO) Vanessa Lo (UQ), Paul Thomas , Parnesh Raniga (CSIRO), Julie Trinder (CSIRO), Melissa Latter, Stephen Tapper	Sterlings Dream - Evaluating early cholinergic degeneration in preclinical Alzheimer's disease using F18 fluoroethoxybenzovesamicol ([18F]FEOBV) PET Imaging	Baseline-2 participants Follow-up-4 participants	Baseline-27 participants Follow-up-4 participants
Sarah Ward and Michael Breakspear (QIMR)	Michael Breakspear, Eamonn Eeles, Robert Adam , Sarah Ward, Kana Appadurai, Shanthi Kanagarajah, Elizabeth Waldie , Madeleine Cameron	FunDemental Study: Functional MRI in Delirium	3	6
Lee Reid (CSIRO), Jurgen Fripp (CSIRO)	Marita Prior, Lindy Jeffree, Alan Coulthard	Consult II - Predicting Surgery-induced Neurological Deficits using CONSULT. A study to measure the ability of CONSULT tractography software to predict surgery-induced neurological deficits	7	15
Zara Ioannides	Alan Coulthard, Stefan Blum, Kaye Hooper, Kate Thompson, Zara Ioannides, Kerryn Green, Andrew Swayne	T-Cell - Follow-up of patients with progressive multiple sclerosis treated with autologous Epstein-Barr virus-specific T cell therapy	1	11
Zara Ioannides	Zara Ioannides, A Swayne, Nanette Douglas, Gem Mackenroth and Kaye Hooper.	NeuroRx ATA 188-MS-101 Pender An Open-Label Phase 1 Study to Evaluate the Safety of ATA188 in Subjects with Progressive and Relapsing-Remitting Multiple Sclerosis	4	14

Lead Investigator Name (RBWH staff in bold)	Other Study Investigators (RBWH staff in bold)	Research Project Title	Number of Patients Recruited in 2020	Total number of Patients Recruited
Louise Emmett (UNSW)	Matthew Roberts, John Yaxley, Paul Thomas, David Pattison	PRIMARY Trial: Additive diagnostic value of PSMA to mpMRI in the diagnostic setting: Ability to reduce unnecessary prostate biopsies in men being investigated for prostate cancer	21	21
Irene Szollosi	Eamonn Eeles , Jurgen Fripp, Deanne Curtain, Elizabeth Coulson	OAS in MCI (CPAP) - A pilot study to investigate the effect of CPAP on markers of cerebral Small Vessel Disease in patients with Mild Cognitive Impairment or early dementia and Obstructive Sleep Apnoea	1	2
Robert Adam	John O'Sullivan, Matthew Katz	A Multicenter, Randomized, Double-blind, Placebocontrolled, Phase 1b/2a Study of WVE-120102 Administered Intrathecally in Patients with Huntington's Disease WVE-HDSNP2-001	3	3
Robert Adam	John O'Sullivan, Matthew Katz	A Multicenter, Randomized, Double-blind, Placebocontrolled, Phase 1b/2a Study of WVE-120102 Administered Intrathecally in Patients with Huntington's Disease WVE-HDSNP1-001	4	4
Paul Martin		Capri - Clinical Investigation of the ENO/TEO/OTO Pacing System under MRI environment	9	9
David Copland	David Copland, Anthony Angwin, Wayne Wilson, Katie McMahon, Robert Adam, Nadeeka Dissanyaka, Kartik Iyer, Sam Armstrong	White Noise - Influence of White Noise on Language Learning	60	60
Michael O'Sullivan	Hugh Markus, Danuta Lisiecka, Andrew Wong , Rohan Grimley, Katie McMahon	The Effects of Apathy on Outcome after Stroke	4	8
Stuart Gribble (Telix)	Declan Murphy (PMCC), Howard Gurney (Macquarie University Hospital), Andrew Scott (Austin Health), David Chan (Royal North Shore Hospital), Simon Wood (PAH), Paul Thomas	ZIRCON (Telix): A confirmatory, prospective, open-label, multi-centre phase 3 study to evaluate diagnostic performance of 89Zirconium-labelled girentuximab (89Zr-TLX250) to non-invasively detect clear cell renal cell carcinoma (ccRCC) by positron emission tomography/CT (PET/CT) imaging in patients with indeterminate renal masses (ZIRCON study)	4	4
Greig de Zubicaray (QUT)	Rosalind Jeffree , David Copland (UQ), Katie McMahon , Gail Robinson (UQ), Alan Coulthard	ZORRO: A prospective study of language function following surgical resection of left hemisphere primary brain tumours	1	5

Lead Investigator Name (RBWH staff in bold)	Other Study Investigators (RBWH staff in bold)	Research Project Title	Number of Patients Recruited in 2020	Total number of Patients Recruited
James Scott (QIMR)	Luca Cocchi (QIMR)	TMS: Mechanisms supporting the whole-brain propagation of local brain stimulation	4	16
Elizabeth Coulson (UQ)	Jurgen Fripp (CSIRO), Victor Villemagne (University of Melbourne), Parnesh Raniga (CSIRO)	Sleep Apnoea: Mechanisms of Cognitive decline in obstructive sleep apnoea	5	35
Michael Breakspear (QIMR)	Sasha Dionisio (Mater), Christine Guo (QIMR)	SEEG: Using Advanced Brain Imaging to guide the surgical treatment of refractory epilepsy	1	35
Roslyn Boyd (UQ)	Peter Davies (UQ), Jenny Ziviani (UQ), Stewart Trost (UQ), Lee Barber (UQ), Robert Ware (Griffith), Stephen Rose (CSIRO), Koa Whittingham (UQ), Kristie Bell (UQ), Christopher Carty (Children's Health Queensland), John Walsh (Children's Health Queensland), Megan Kentish (Children's Health Queensland), Lisa Copeland (Children's Health Queensland), Priya Edwards (Children's Health Queensland), Owen Lloyd (Children's Health Queensland), Leanne Sakzewski (UQ), Kelly Weir (Children's Health Queensland), Denise Brookes (UQ), Alan Coulthard (UQ), Katherine Benfer (UQ), Andrea Guzzetta (University of Pisa), Steven Obst (Griffith), Paul Scuffham (Griffith), Joshua Byrnes (Griffith), Martin Downes (Griffith), Richard Norman (Curtin University), Jurgen Fripp (CSIRO), Kerstin Pannek (CSIRO), Nicholas Dowson (CSIRO)	PREDICT CP: Implementation of comprehensive surveillance to Predict outcomes for children with Cerebral Palsy	7	94
Joanne George (UQ)	Alex Pagnozzi, Samudragupta Bora, Roslyn Boyd (UQ), Paul Colditz, Stephen Rose (CSIRO), Robert Ware, Kerstin Pannek (CSIRO), Jane Bursle , Karen Barlow (UQ), Kartik Iyer (UQ)	PREBO-6: Prediction of childhood Brain Outcomes in infants born preterm using neonatal MRI and concurrent clinical biomarkers	38	62
Michael Breakspear (QIMR), Christine Guo (QIMR)	Nick Martin (QIMR); Gerard Byrne (UQ); Stephen Rose (CSIRO); Nick Martin (QIMR), Olivier Salvado (CSIRO); Gail Robinson (UQ); Nancy Pachana (UQ); Osvaldo Almeida (UWA); Margaret Wright (UQ), Michelle Lupton (QIMR); Vinh Nguyen (QIMR); Mohan Karunani; Qing Zhang; Eamonn Eeles (TPCH); Rajib Rana; Phil Mosley (QIMR); Rob Adam , Paul Varghese (GARU), Peter Nestor (Mater), Jurgen Fripp (CSIRO)	PISA: Prospective Imaging Study of Ageing: Genes, Brain and Behaviour	12	329

Lead Investigator Name (RBWH staff in bold)	Other Study Investigators (RBWH staff in bold)	Research Project Title	Number of Patients Recruited in 2020	Total number of Patients Recruited
David Copland (UQ)	Andrew Wong, Anna Farrell, Penni Burfein , Tracy Roxbury (UQ), Katherine O'Brien, Alan Coulthard, Katie McMahon , Marcus Meinzer, Kana Appadurai , Natasha Simmons, Andrew Bradley (UQ), Greig De Zubicaray (QUT)	PAPAR: Predicting and Promoting Sub-acute Aphasia Recovery	11	45
Michael Breakspear (QIMR), Luca Cocchi (QIMR)		OCD: Effects of focal non-invasive brain stimulation on network dynamics and symptoms of Obsessive-Compulsive Disorder	13	98
Matthew Wissemann (QUT)		MERF CAD: MERF Cadaver Imaging for Surgical Training	24	29
Michael McAuliffe	Katie McMahon , Jason Dowling (CSIRO)	INTRA: Feasibility study for evaluating scientific methodology for reliable data collection to record initial data describing the intramedullary microenvironment of the tibia, femur and iliac crest with specific reference to partial pressure of oxygen (pO ₂)	4	
Leanne Sakzewski (UQ)	Roslyn Boyd (UQ), Ioan Novak (Cerebral Palsy Alliance, University of Sydney), Kerstin Pennek (CSIRO), Cathy Morgan Cerebral Palsy Alliance, University of Sydney), Prue Golland (Cerebral Palsy Alliance, University of Sydney), Catherine Elliott (Curtain University) Jurgin Fripp (CSIRO), David Rowell (UQ), Robert Ware (Griffith University)	HABIT-ILE: HABIT-ILE: A randomized trial of hand arm bimanual intensive training including lower extremity training for children with bilateral cerebral palsy	16	92
Jurgin Fripp (CSIRO)		FLAWS: Optimization of the FLAWS MRI sequence with compressed sensing at 3T.	10	10
Frederick Steyn (UQ)	Shyuan Ngo (UQ), Christine Guo (QIMR), Veronique Chachay (UQ), Pamela McCombe (UQ), Robert Henderson , Amelia Ceslis (UQ)	EATT for MND: Exploring Appetite Targets and Therapies for the treatment of Motor Neurone Disease	10	60
Karen Barlow (UQ), Paul Hopkins (UQ)	Penny Ireland (QCH), Owen Lloyd (QCH), Huong Nguyen (UQ), Kim McLennan (QCH),	BEACON: Transcranial Magnetic Stimulation in patients with moderate to severe traumatic head injury	2	2
Fatimah Nasrallah (UQ)	Craig Winter , Stephen Rose (CSIRO), Alan Coulthard , Geoff Osborne, Paul Nicholds, Prof Naomi Wray, Anjali Henders, Megan Campbell, Jason Ross, Warwick Locke, Amelia Livermore, Therese Starr, Melissa Lassig-Smith, Janine Stuart, Cheryl Fourie, Judith Bellapart, Patrick Donnelly, Timothy Whyte	BBB: A Magnetic Resonance Imaging approach to investigate blood brain barrier dysfunction in brain injury and subarachnoid haemorrhage patients as a predictor of patient outcome	4	4

Lead Investigator Name (RBWH staff in bold)	Other Study Investigators (RBWH staff in bold)	Research Project Title	Number of Patients Recruited in 2020	Total number of Patients Recruited
David Copland (UQ)	Teppo Särkämö (University of Helsinki) , Marcus Meinzer (Universitätsmedizin Greifswald), Felicity Baker (University of Melbourne), Tracy Roxbury (UQ), Katie McMahon (HIRF/QUT) , Sarah Wallace (UQ), Anna Girardi (UQ), Lisa Anemaat (UQ), Andrew Wong, Anna Farrell, Penni Burfein , Melissa Lawrie (GCUH), Rachel Wenke (GCUH), Rohan Grimley (SCUH), Jennie Lettieri (SCUH), Rohan Walker, Sarah Medland (QIMR), Jennifer Lee (UQ), Kathryn Broadhouse (USC), David Fitzgerald (UQ), Sandeep Bhuta (GCUH)	AMP: Aphasia recovery with Music exPosure	18	21
Bjorn Burgher	Nikitas Koussis (QIMR), Genevieve Whybird (QIMR), Michael Breakspear (QIMR), James Scott	Microresonance – Early Psychosis: Neuroinflammation and Neurodegeneration from prodrome to FEP using multi-modal MRI	0	
Anders Cervin		LYRA – LYR 210-2018-002 A Phase II, randomized, blinded, Sham procedure-controlled, parallel-group trial to evaluate the efficacy, safety and teolerability of LYR-201 in adult subjects with chronic sinusitis	2	9
Chrys Pulle Scott McKenzie		A multicenter, randomized, double-blind, active-controlled study to evaluate the effects of LCZ696 compared to valsartan on cognitive function in patients with chronic heart failure and preserved ejection fraction Short title – Perspective LCZ696	0	1

Research Publications

Journal Articles

1. **T. Kairn, C. Berry, L. Campbell, K. McMahon, S. Peet, S. B. Crowe.** (2020) Appearance and minimisation of respiratory motion artefacts in thoracic MRI images of prone patients, Physical and Engineering Sciences in Medicine 43(1): 461-462 DOI: 10.1007/s13246-019-00826-6
2. Isaacs M, **McMahon KL**, Angwin AJ, Crosson B, Copland DA. (2020) The Influence of Contextual Constraint on Verbal Selection Mechanisms and its Neural Correlates in Parkinson's Disease. Brain Imaging and Behaviour, Accepted April 2020
3. Pourzinal D, Yang JHJ, **Bryne GJ**, O'Sullivan JD, **Mitchell L, McMahon KL**, Copland DA, **Dissanayaka NN.** (2020) Identifying Subtypes of Mild Cognitive Impairment in Parkinson's Disease using Cluster Analysis. Journal of Neurology, Accepted June 2020
4. de Zubicaray G, **McMahon KL**, Arciuli J. (2020) A sound explanation for motor cortex engagement during action word comprehension. JOCN, Online Oct 15. https://doi.org/10.1162/jocn_a_01640

5. Roberts, M.J., Morton, A., **Donato, P.**, Kyle S, **Pattison DA, Thomas P, Coughlin G, Esler R, Dungleison N, Gardiner RA**, Doi SA, Emmet L, **Yaxley J.** (2020) ⁶⁸Ga-PSMA PET/CT tumour intensity pre-operatively predicts adverse pathological outcomes and progression-free survival in localised prostate cancer. *Eur J Nucl Med Mol Imaging*. <https://doi.org/10.1007/s00259-020-04944-2>

6. George JM, Pagnozzi AM, Bora S, Boyd RN, **Colditz PB**, Rose SE, **Ware RS**, Pannek K, **Bursel JE**, Fripp J, Barlow K, Iyer K, Leishman SJ, Jendra RL. (2020) Prediction of childhood brain outcomes in infants born preterm using neonatal MRI and concurrent clinical biomarkers (PREBO-6): study protocol for a prospective cohort study. *BMJ Open* 2020;10:e036480. doi: 10.1136/bmjopen-2019-036480

7. **Tahleesa J. Cuda**, Andrew D. Riddell, Cheng Liu, Vicki L. Whitehall, Jennifer Borowsky, **David K. Wyld, Matthew E. Burge, Elizabeth Ahern**, Alison Griffin, Nicholas J.R. Lyons, Stephen E. Rose, **David A. Clark, Andrew R.L. Stevenson**, John D. Hooper, Simon Puttick, and **Paul A. Thomas**. PET Imaging Quantifying ⁶⁸Ga-PSMA-11 Uptake in Metastatic Colorectal Cancer. *J Nucl Med* 2020; 61:1576–1579

8. Michael S Hofman, Nathan Lawrentschuk, Roslyn J Francis, Colin Tang, Ian Vela, **Paul Thomas**, Natalie Rutherford, Jarad M Martin, Mark Frydenberg, Ramdave Shakher, Lih-Ming Wong, Kim Taubman, Sze Ting Lee, Edward Hsiao, Paul Roach, Michelle Nottage, Ian Kirkwood, Dickon Hayne, Emma Link, Petra Marusic, Anetta Matera, Alan Herschtal, Amir Iravani, Rodney J Hicks, Scott Williams, Declan G Murphy, Prostate-specific membrane antigen PET-CT in patients with high-risk prostate cancer before curative-intent surgery or radiotherapy (proPSMA): a prospective, randomised, multi-centre study. for the proPSMA Study Group Collaborators* *Lancet*. 2020;395:1208-1216

9. Chia J, **Eeles EM**, Tattam K, Yerkovich S. Outcomes for patients with delirium receiving hospital-in-the-home treatment: An Australian perspective. *Australasian journal on ageing*. 2020;39(2):e215-e9

10. **Eeles E**, England R, Teodorczuk A, Pandy S, Pinsker D, Armstrong A. Delirium Management: Anything's Possible. *Canadian journal on aging = La revue canadienne du vieillissement*. 2020;39(1):89-97

11. **Eeles E**, Huang L, Dakin L, Ling C, Dunn E, Fraser J, et al. Development and validation of an aetiology in delirium diagnostic support tool. *Age and ageing*. 2020

12. **Eeles E**, Ward S, Teodorczuk A, Dissanayaka N, Burianová H. Consciousness and the rabbit holes of delirium. *Med Hypotheses*. 2020;144:110260

13. George JM, Pagnozzi AM, Bora S, Boyd RN, Colditz PB, Rose SE, Ware RS, Pannek K, **Bursel JE**, Fripp J, Barlow K, Iyer K, Leishman SJ, and Jendra RL. Prediction of childhood brain outcomes in infants born preterm using neonatal MRI and concurrent clinical biomarkers (PREBO-6): study protocol for a prospective cohort study. *BMJ Open* 2020;10:e036480. doi:10.1136/bmjopen-2019-036480

Conference Presentations – Invited Speaker, Oral and Poster

Invited Speaker

1. **A Scott**. Novel Imaging of Leukemia and GVHD. Herston Precinct Symposium, Dec 11th, Brisbane, 2020.

2. **D Pattison**, PSMA-Targeted Imaging and Radionuclide Therapy for Prostate Cancer, Herston Precinct Symposium, Dec 11th, Brisbane, 2020

3. L Oesterleich, Structural and Functional Brain Changes in Post-Stroke Depression, Herston Precinct Symposium, Dec 11th, Brisbane, 2020

4. **B Burgher**, Clinical Neuroscience Research at HIRF, Herston Precinct Symposium, Dec 11th, Brisbane, 2020.

5. **D Copland**, The Future of Aphasia Rehabilitation: From Principles and Predictors to Practice. Herston Precinct Symposium, Dec 8th, Brisbane, 2020

6. **D Copland**, Elizabeth Usher Memorial Lecture: Lost in Translation? Challenges and future prospects for a neurobiological approach to aphasia rehabilitation, Speech-Language Pathology Australia, 2020

7. **E.Eeles** Invited speaker to Queensland Clinical Sciences Symposium, Australian Academy of Health and Medical Sciences March 2020. Postponed due to COVID-19, rescheduled for March 2021

Oral Presentations

1. **E. Eeles** Abstract accepted for digital publication at the Australian Dementia Forum 2020. "Quantification of brain cholinergic function using [18F]FEOBV PET imaging in patients with dementia". The ADF2020 Abstract Booklet was published by the NHMRC National Institute for Dementia
 2. **E, Eeles**
 3. Dementia Centre for Research Collaboration (DCRC) Symposium Anxiety and Depression in Dementia Research, Dec 2020
 4. Hofman MS, Emmett L, Sandhu S, Iravani A, Joshua AM, **Goh JC, Pattison DA**, et al. A randomized phase II trial of 177Lu-PSMA-617 (Lu-PSMA) theranostic versus cabazitaxel in metastatic castration resistant prostate cancer (mCRPC) progressing after docetaxel: initial results (ANZUP protocol 1603). *American Society of Clinical Oncology Annual Meeting 2020*.
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Poster Presentations

1. Al Masri HAM, Ali T, **McMahon KL**, Barth M. (2020) Fast, Automatic MRI Quality Assurance: Validation and Comparison with Manual Analysis using the ACR phantom. ISMRM, Virtual Conference, August 8-13, 2020
 2. Vadinova V, Roxbury T, O'Brien K, Garden K, **McMahon KL**, Copland DC, Brownssett S. (2020) Premorbid brain health negatively impacts residual language function in subacute aphasia. SNL Virtual, October 2020
 3. Pourzinal D, Yang JH, **Byrne GJ**, O'Sullivan JD, Mitchell LK, **McMahon KL**, Copland DA, Dissanayaka NN. (2020) Altered functional connectivity of the hippocampus in posterior-cortical subtype of cognitive impairment in Parkinson's disease. ASMR virtual conference. November 2020
 4. Yang JHJ, **Byrne GJ**, O'Sullivan JD, **McMahon KL**, Copland DA, Dissanayaka NN. (2020) Neural Correlates of Semantic Fluency Deficits in Parkinson's disease with Mild Cognitive Impairment. Herston Precinct Symposium, Dec 7-11, Brisbane 2020
 5. Yang JHJ, Forbes EJ, Pourzinal D, **McMahon KL**, Copland DA, **Byrne GJ**, O'Sullivan JD, **Mitchel LK**, Dissanayaka NN. (2020) Identification and clinical characteristics of Mild Cognitive Impairment in Parkinson's disease. Herston Precinct Symposium, Brisbane, Dec 7-11 2020
 6. Su P, Yang J, **McMahon KL**, **Byrne GJ**, Dissanayaka NNW. (2020) A neuroimaging paradigm for exploring aging, anxiety, and cognition. Herston Precinct Symposium, Brisbane Australia, Dec 7-11 2020
 7. Pourzinal D, Bakker A, **Bryne G**, **McMahon KL**, O'Sullivan J, Adam R, Copland D, Yang JH, Au T, Littleford R, Chatfield M, Pontone G, Mari Z, Dissanayaka N. (2020) Therapy to Reduce dementia risk In Parkinson's disease (TRIP): Proof-of-concept protocol. Herston Precinct Symposium, December 7-11th, Brisbane Australia, 2020
 8. Dissanayaka NN, Forbes EJ, Yang JHJ, Pourzinal D, O'Sullivan J, **Mitchell LK**, Copland DA, **McMahon KL**, **Byrne GJ**. (2020) Anxiety disorders are associated with verbal memory impairment in patients with Parkinson's disease without dementia. Herston Precinct Symposium, Brisbane, Dec 7-11 2020
 9. Pourzinal D, Yang JHJ, **Bryne GJ**, O'Sullivan JD, **Mitchell L**, **McMahon KL**, Copland DA, Dissanayaka NN. Using cluster analysis to identify Mild Cognitive Impairment phenotypes in Parkinson's disease. Australian Dementia Forum (ADF), 31 May - 2 June, Adelaide, Australia, 2020
 10. Forbes EJ, **Byrne GJ**, Yang JHJ, O'Sullivan J, Copland DA, **McMahon KL**, **Mitchell LK**, Dissanayaka NN. (2020) Anxiety is associated with verbal memory impairment in Parkinson's disease. Australian Association of Gerontology Conference, 18-20 November, Virtual Conference, 2020
 11. Yang JHJ, **Byrne GJ**, **O'Sullivan JD**, **McMahon KL**, Copland DA, Dissanayaka NNW. (2020) Neural correlates of semantic fluency deficits in Parkinson's disease with mild cognitive impairment. BioNetwork, Oct 7-9, Virtual conference
 12. Yang JHJ, Forbes EJ, Pourzinal D, **McMahon KL**, Copland DA, **Byrne GJ**, **O'Sullivan JD**, **Mitchell LK**, Dissanayaka NNW. (2020) Identification and clinical characteristics of Mild Cognitive Impairment in Parkinson's disease. BioNetwork, Oct 7-9, Virtual conference
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13. Vadinova V, **McMahon KL**, Copland DA, Brownsett S. (2020) Premorbid brain health negatively impacts residual language function in subacute aphasia. SNL, Virtual conference

14. Dissanayaka NN, Forbes EJ, Yang JHJ, O'Sullivan J, Copland DA, **McMahon KL**, **Mitchell LK**, **Byrne GJ**. (2020) Anxiety disorders are associated with verbal memory impairment in Parkinson's disease. International Movement Disorders Society Congress, Philadelphia, PA, USA, September 13-17, 2020

15. Yang JHJ, **Byrne GJ**, O'Sullivan JD, **McMahon KL**, Copland DA, Dissanayaka NN. (2020) Neural Correlates of Semantic Fluency Deficits in Parkinson's disease with Mild Cognitive Impairment. International Movement Disorders Society Congress, Philadelphia, PA, USA, September 13-17, 2020

16. Yang JHJ, Forbes EJ, Pourzinal D, **McMahon KL**, Copland DA, **Byrne GJ**, O'Sullivan JD, **Mitchell LK**, Dissanayaka NN. (2020) Identification and clinical characteristics of Mild Cognitive Impairment in Parkinson's disease. International Movement Disorders Society Congress, Philadelphia, PA, USA, September 13-17, 2020

17. Singaravelu K, Sullivan KA, **Greenslade J**, **Mitchell G**, Lyrstedt AL, Kerr G, Hills A, Chu K, Mullins R, Smith S, Bendt S, **McMahon KL**. (2020) An inclusive recruitment strategy can help to improve mTBI research. 40th National Academy of Neuropsychology (NAN) Virtual Conference

Jamieson Trauma Institute

The Jamieson Trauma Institute (JTI) aims to advance trauma prevention and care through service delivery, research, education, data analytics and clinical innovation. The JTI research program benefits from a solid network of collaborations with universities, health organisations, government bodies and industry partners to pioneer innovative approaches to healthcare through a people-centric paradigm.

The third year of age has been marked by intense growth in JTI's workforce and capacity. JTI has continued to build a reputation as an institution that welcomes and mentors undergraduate and post-graduate students, and we have engaged students from local and interstate universities. Our activities have seen a dramatic increase, with thirty-five projects started in 2020 to a total of sixty-seven projects currently underway. Fifteen projects funded by the JTI Research Advisory Committee have progressed throughout the year and some have delivered conference presentations and been successful at obtaining further external funding. JTI published 33 research articles, contributed or led government submissions or parliamentary briefing notes, and released several injury reports through the JTI website. The Queensland Injury Surveillance Unit (QISU) joined JTI in March 2020, and together we have released data analytics reports to stakeholders, including an ongoing analysis of the impact of the COVID-19 pandemic on trauma that has been extremely well received. As a result, there has been significant interest in facilitating timely linkages of data to support COVID-19 responses, and JTI is continuing to advocate within key areas and relevant committees to provide timely support to health services.

JTI provided the evidence base for the establishment of the multidisciplinary Device-Related Infection Team (mDRIFT) at the Royal Brisbane and Women's Hospital. mDRIFT is Australia's first orthopaedic infection specialist centre. It includes two JTI-funded positions and one of its goals is to actively collect patient outcomes, with the objective to monitor benefits and inform further research and initiatives.

Other knowledge translation activities have included a strong presence at the Herston Health Precinct Symposium 2020, where JTI facilitated two sessions, one on augmented reality and the other on implant related infections, and JTI staff delivered several presentations and participated in forums throughout the symposium. The Mental Health Disorders after Trauma workshop, facilitated by JTI and held in November 2020, attracted nearly two hundred clinicians and researchers, and it launched a grant program for proposals aimed at undertaking trials using innovative solutions to improve mental health outcomes after trauma.

The following sections of this report include detailed information on the research achievements of JTI in 2020.

Research Awards and Achievements

Recipient (RBWH staff in bold)	Award	Event
Jacelle Warren	RBWH Postgraduate Scholarship 2021	2020 RBWH and RBWH Foundation Grant Awards Ceremony
Jordy White	RBWH Postgraduate Scholarship 2021	2020 RBWH and RBWH Foundation Grant Awards Ceremony
Andrew Foster	Best Scientific Registrar Paper	Australian Orthopaedic Association Queensland Branch Meeting 2020

Research Grants Awarded in 2020

Investigator Names (RBWH staff in bold)	RBWH Departments / Research Groups	Research Project Title	Granting Body	Total Awarded	Year/s
Fatima Nasrallah, David Reutens, Shekhar Chandra, James Walsham, Trevor Russell, Sandeep Bhuta, Jason Ross, Craig Winter , Siva Senthuran, Judith Bellapart , ..., Cliff Pollard , Jacelle Warren , Victoria McCreanor	Intensive Care, Neurosurgery, Jamieson Trauma Institute	PREDICT-TBI - PREdiction and Diagnosis using Imaging and Clinical biomarkers Trial in Traumatic Brain Injury: the value of Magnetic Resonance Imaging	Medical Research Future Fund Traumatic Brain Injury Mission 2020	\$1,765,000	2020–2023
Cate Cameron , Robert Eley, Kerriane Watt, Michael Rudd , Michael Handy , Roisin O'Neill	Jamieson Trauma Institute, Trauma Service	P.A.R.T.Y. (Prevent Alcohol and Risk-Related Trauma in Youth) Program	BDHP Trauma, Critical Care and Recovery 2020 Theme Funding	\$4,788	2020–2021
Michael Schuetz , David Paterson, David Hansen, Victoria McCreanor , Andrej Trampuz, Andrew Foster	Jamieson Trauma Institute	Artificial intelligence-assisted medical consultation portal for orthopaedic device-related infection	BDHP Trauma, Critical Care and Recovery 2020 Theme Funding	\$10,000	2020–2021
Michael Schuetz , Rohan Brunello, Paul Pincus, Elizabeth Waldie, Nicola Hewlett-Smith, Wilbur Chan, Polly Tsai, Omar Kaiser, Brett Droder , Silvia Manzanero	Jamieson Trauma Institute	Integrated management of patients with hip fractures (NOF patients) using mobile multidisciplinary communication systems to streamline management and maximise outcomes	Wesley Medical Research 2020 Clinical Research Grant Round	\$99,466	2020–2022
Chiara Santomauro, Mia McLanders, Cliff Pollard , Drew Rae, Penelope Sanderson	Clinical Skills Development Service, Jamieson Trauma Institute	Improving emergency trauma care for rural, regional and remote Queenslanders	Advance Qld Industry Research Fellowship	\$180,000	2020–2022
Moe Thandar Wynn, Arthur ter Hofstede, Robert Andrews, Kirsten Vallmuur , Emma Bosley, Stephen Rashford, Clinton Gibbs, Michael Schuetz , Martin Wullschleger	Jamieson Trauma Institute	Road Trauma: Modelling the Patient Journey from Pre-hospital Triage to Outcome Using Process Mining	Motor Accident Insurance Commission	\$325,790	2020–2023
Michael Schuetz	Jamieson Trauma Institute	NHMRC CRE in infection management in orthopaedics and trauma	QUT URB BID Support	\$5,000	2020
Laurent Frossard, Michael Schuetz , Christian Langton, David Lloyd, Rod Barrett, Pei Huang, Ross Powrie	Jamieson Trauma Institute	Innovative In-Vivo Kinetic System to Facilitate Rehabilitation and Maintenance Residuum Health After Limb Loss	Department of Defense Medical Research and Development Program RESTORE awards	US\$900K = AUD\$1,2M	2020–2022
Michael Schuetz , Prasad Yarlagadda, Kaushik Chatterjee, Dietmar Hutmacher, Kirsten Spann, YuanTong Gu, Alka Jaggessar, Amit Singh, Krispin Hajkowicz , Suryasarathi Bose, Asha Mathew	Jamieson Trauma Institute, Infectious Diseases	Nanoscale manufacturing platform to combat pandemics like COVID-19	Australia-India Strategic Research Fund Round 13 COVID19 Collaborative Research Projects	\$577,130	2020–2022

Current RBWH [Department / Research Group Led Research Activity](#)

Lead Investigator Name (RBWH staff in bold)	Other Study Investigators (RBWH staff in bold)	Research Project Title	Number of Patients Recruited in 2020	Total number of Patients Recruited
Kirsten Vallmuur	Matthew Hope (PAH), Ben Beck (Monash), Victoria McCreanor (JTI), Gary Mitchell (ETC), Rob Eley (PAH), Shefta Huda (Logan), Cate Cameron (JTI), Jacelle Warren (JTI)	Personal mobility device injuries: observational study using data from Brisbane	Data from 1,500 admissions to RBWH, PAH and Mater.	Data from 1,500 admissions to RBWH, PAH and Mater
Cate Cameron	Jacobus Ungerer (Pathology), Kirsten Vallmuur (JTI), Jacelle Warren (JTI), Victoria McCreanor (JTI), Cliff Pollard (JTI), Michael Schuetz (JTI), Tegwen Howell (Consultant), Gary Mitchell (ETC)	Alcohol and injury: Prevalence study at RBWH ED	0	0
Cate Cameron	Bill Loveday (MRQ), Kirsten Vallmuur (JTI), Victoria McCreanor (JTI), Melanie Proper (MDPC), Jacelle Warren (JTI), Cliff Pollard (JTI), Nick Graves (QUT)	Prevalence and impact of opioid use pre- and post-trauma in Queensland: population-based data linkage study	Data from over 600,000 admissions statewide	Data from over 600,000 admissions statewide
Cate Cameron	Matthew Hope (PAH), Victoria McCreanor (JTI), Jacelle Warren (JTI), Kirsten Vallmuur (JTI), Kevin Tetsworth (JTI), Cliff Pollard (JTI)	The burden and cost of pelvic and lower extremity orthopaedic injuries from land transport crashes in Queensland	0	Data from 27,303 admitted patient episodes statewide
Cate Cameron	Jacelle Warren (JTI), Michael Muller (Burns), Michael Rudd (Trauma Service)	Epidemiology of burns patients admitted to the state-wide Adults Burns Service in Queensland: A 10year review	6,554 patients included on the RBWH Burns Registry 2000 – 2020	6,554 patients included on the RBWH Burns Registry 2000 – 2020
Kirsten Vallmuur	Angela Watson (QUT), Paul Taylor (MAIC), Victoria McCreanor (JTI), Cate Cameron (JTI), Jacelle Warren (JTI)	An examination of the quality of injury data and patterns, trends and burden of injury for informing establishment of a statewide trauma data warehouse	0	595,604 admitted patient episodes of acute care statewide
Kirsten Vallmuur	Angela Watson (QUT), Chris Uber (UQ), Belinda Gabbe (Monash), James Harrison (Flinders), Son Ngheim (Griffith), Cate Cameron (JTI), Jacelle Warren (JTI), Victoria McCreanor (JTI)	Evaluation of ICD-10-AM based injury severity estimation models	0	92,140 admitted patient acute care episodes statewide – matched the Queensland Trauma Registry data
Kirsten Vallmuur	Angela Watson (QUT), Paul Taylor (MAIC), Michael Clacher (QLD Treasury), Sebastian Bielen (OIR), Andrew Currie (WorkCover), Cate Cameron (JTI), Jacelle Warren (JTI), Victoria McCreanor (JTI)	Feasibility, requirements, and value of data linkage of motor vehicle accident compensation, workers compensation and health data in Queensland	Data from over 1 million records – statewide admissions, emergency, MAIC, Workers Compensation, Qld Ambulance Service	Data from over 1 million records.

Lead Investigator Name (RBWH staff in bold)	Other Study Investigators (RBWH staff in bold)	Research Project Title	Number of Patients Recruited in 2020	Total number of Patients Recruited
Cate Cameron	Maura Desmond (P.A.R.T.Y.), Michael Rudd (Trauma Service), Cliff Pollard (JTI), Kerrienne Watt (JCU)	A retrospective analysis of data collected from the P.A.R.T.Y. (Prevent Alcohol and Risk-Related Trauma in Youth) program 2010-2018	Data from 5,999 students completing the program statewide.	Data from 11,773 students completing the program statewide.
Victoria McCreanor	Michael Schuetz , Venerina Johnston (UQ), Christopher Smith (Physiotherapy), Jerry van de Pol (Orthopaedics), Melanie Plinsinga (UQ), Richard Hanly (Orthopaedics), Silvia Manzanero , Peter Slattery (Rehabilitation Engineering)	SMART-Ankle: Streamlining Management And Rehabilitation with Technology for Ankle fractures	0	0
Andrew Foster	Kevin Tetsworth (Orthopaedics), Michael Schuetz , Ross Crawford (QUT), Anjali T Jaiprakash (QUT), Jacelle Warren , David Paterson (UQ)	Antibiotic-Loaded Polymethyl methacrylate Bone Cement Intramedullary Nails in the Treatment of Fracture-Related Infection	Data from 64 patients	Data from 64 patients
Andrew Foster	Kevin Tetsworth (Orthopaedics), Michael Schuetz , Ross Crawford (QUT), Anjali T Jaiprakash (QUT), Jacelle Warren , David Paterson (UQ)	Identifying Risk Factors for Fracture-Related Infection	Data from 128 patients	Data from 128 patients
Kirsten Vallmuur	Jacelle Warren , Martin Wullschleger (Trauma), Cate Cameron , Shahera Banu , Angela Watson (QUT)	How pandemics impact on everyday epidemics: Tracking and responding to injury and trauma during COVID-19	0	0
Michael Schuetz	David Paterson (UQ), David Hansen (CSIRO), Victoria McCreanor , Andrej Trampuz (Charité), Andrew Foster	Artificial intelligence-assisted medical consultation portal for orthopaedic device-related infection	Data from 128 patients	Data from 128 patients
Kirsten Vallmuur	Jesani Catchpoole , Goshad Nand , Michelle Hillcoat , Ruth Barker , Gaurav Nanda (Purdue), Mark Lehto (Purdue)	Machine learning classifier development using ED triage text	Methodological study – does not involve patient recruitment.	Methodological study – does not involve patient recruitment.
Kirsten Vallmuur	Jacelle Warren , Jesani Catchpoole , Donna Truran (CSIRO), Ming Zhang (CSIRO), Michael Lawley (CSIRO),	SNOMED-ICD interoperability and mapping project	Methodological study – does not involve patient recruitment.	Methodological study – does not involve patient recruitment
Helena Franco	Michael Schuetz , Frances Williamson	The use of analgesia between operative and conservative management of clavicle fractures in trauma patients with associated ipsilateral rib fractures	0	0
Beat Schmutz	Marie-Luise Wille (QUT), Paige Little (QUT), Buddhi Herath (QUT)	Best work practise for the manufacturing of patient specific 3D printed scaffolds (for critical size bone defects) – Improved workflow with open source software	Use of data from existing databases – does not involve patient recruitment	Use of data from existing databases – does not involve patient recruitment

Lead Investigator Name (RBWH staff in bold)	Other Study Investigators (RBWH staff in bold)	Research Project Title	Number of Patients Recruited in 2020	Total number of Patients Recruited
Shahera Banu	Jacelle Warren, Cate Cameron, Victoria McCreanor, Cliff Pollard, Kirsten Vallmuur	Penetrating injury related hospitalisation and patient outcome in Queensland over a 5-year period	37,491 episodes of care (31,223 distinct patients statewide)	37,491 episodes of care (31,223 distinct patients statewide)
Beat Schmutz	Tri Phan (QUT), Kevin Tetsworth (Orthopaedics)	Variation in femoral morphology and its effects on implant design and implant fit in Asian populations	Use of data from existing databases – does not involve patient recruitment	Use of data from existing databases – does not involve patient recruitment
Kirsten Vallmuur	Susanna Cramb, Victoria McCreanor , Thom Saunders (QUT), Michael Schuetz	Developing the Queensland Injury Atlas: An interactive platform for clinical and policy decision making	595,604 admitted patient episodes of acute care statewide linked to hospital costs	595,604 admitted patient episodes of acute care statewide linked to hospital costs
Beat Schmutz	Nicole Milham (RBWH), Thomas Cooper (Oral and Maxillofacial), Edward Hsu (Oral and Maxillofacial), Anthony Lynham , Dietmar Hutmacher (QUT)	Differences in orbital volumes generated from MRI-based 3D models of the fractured bony orbit with a virtually positioned pre-bent fan plate in situ compared to CT based models	Use of data from existing databases – does not involve patient recruitment	Use of data from existing databases – does not involve patient recruitment
Beat Schmutz	Hiro Minehara (Shin-Yurigaoka General Hospital), Chun Yuen, Yohan Schmutz-Leong, Aaron Kurtti, Michael Schuetz	Location of tibial nail entry point relative to patellar tendon with patellar centering knee alignment	Use of data from existing databases – does not involve patient recruitment	Use of data from existing databases – does not involve patient recruitment
Beat Schmutz	Husain Tabassum (QUT), Paige Little (QUT), Andrew Fielding (QUT), Andreas Petersik (Stryker), Heiko Gottschling (TU München), Manuel Schroeder (TU München)	Virtual Automated Anatomical 3D Alignment of Bone Fragments – Solving the Fracture Puzzle	Use of data from existing databases – does not involve patient recruitment	Use of data from existing databases – does not involve patient recruitment

Collaborative Research Activity Involving RBWH Department / Research Group

Lead Investigator Name (RBWH staff in bold)	Other Study Investigators (RBWH staff in bold)	Research Project Title	Number of Patients Recruited in 2020	Total number of Patients Recruited
Robert Andrews	Moe Thandar Wynn, Kirsten Vallmuur , Arthur ter Hofstede, Stephen Rashford, Emma Bosley, Mark Elcock	Identifying pre-hospital retrieval processes for road trauma patients in Queensland	Methodological study – does not involve patient recruitment	Methodological study – does not involve patient recruitment
Deborah Theodoros, Louise Cahill	Jacelle Warren, Cate Cameron, Kirsten Vallmuur	Distribution and type of inpatient allied health services provided to patients following road traffic crashes across Queensland	0	Data from 8,721 patients statewide

Lead Investigator Name (RBWH staff in bold)	Other Study Investigators (RBWH staff in bold)	Research Project Title	Number of Patients Recruited in 2020	Total number of Patients Recruited
Craig Winter , Fatima Nasrallah	Stephen Rose, Alan Coulthard , Geoff Osborne, Paul Nichols, Naomi Wray, Anjali Henders, Leanne Wallace, Megan Campbell, Jason Ross, Warwick Locke, Amelia Livermore , Therese Starr , Melissa Lassig-Smith , Janine Stuart , Cheryl Fourie , Judith Bellapart , Patrick Donnelly , Timothy Whyte , Javier Urriola, Paul Thomas , Cliff Pollard , Katie McMahon, Gary Mitchell , Eduardo Miguel Apellaniz, Liam Maclachlan , Dana Bradford	An MRI approach to investigate blood-brain barrier dysfunction in TBI and SAH patients as a predictor of patient outcome	11	30
Gary Mitchell	Cliff Pollard , Fatima Nasrallah, Michael O'Sullivan, Jason Ross, Louise Cullen , Jack Taylor , Nathan Brown	The sensitivity and specificity of brain-origin circulating cell free DNA (ccfDNA) for the diagnosis of concussion and prediction of intracranial injuries	132	154
Peter Slattery	Oliver Mason , Gunjeet Minhas , Sean Powell, David Forrestal, Jacob Skewes, Mia Woodruff, Carey Bayliss, Lucy Maugham, Shailendra Maharaj, Kristen Morris – Project funded by JTI	Personalised 3D printed reactive cushions for pressure wound management	Engineering study – no patient data required	Engineering study – no patient data required
Ashish Wadhawan	Michael Schuetz , Kevin Tetsworth , Beat Schmutz , Pierrick Bourgeat, Jurgen Fripp	Development of an Artificial Intelligence screening system to identify patients requiring a CT scan following distal radius fractures	525 x-rays from RBWH patients	525 x-rays from RBWH patients
Christopher Futter	Alvin Obed, Paul Schlosser, Penelope Sanderson, Christine Woods, Kerstin Wyssusek – Project funded by JTI	The use of Head-Mounted Displays (HMDs) to detect patient deterioration in a simulated trauma setting	0	0
Elizabeth Vujcich	Jason Brown , Michelle Donovan , Noah Betar – Project funded by JTI	ELATE - Early versus Late Ablative CO2 Fractional Laser Treatment Evaluation	3	3
Andrea Mc Kittrick	Michelle Donovan , Amber Jones , Jason Brown , Elizabeth Vujcich , Sue Laracy , Jennifer Strong – Project funded by JTI	ELEVATE – Feasibility, acceptability and safety of vacuum therapy on burn scar outcomes	3	3
Christopher Futter	George Pang , Mark Trembath , Kerstin Wyssusek , Christine Woods – Project funded by JTI	3D Printed Thoracic Epidural Trainer and a novel approach to ultrasound guided epidural insertion	0	0
Fatima Nasrallah	David Reutens, Shekhar Chandra, James Walsham, Trevor Russell, Sandeep Bhuta, Jason Ross, Craig Winter , Siva Senthuran, Judith Bellapart , ..., Cliff Pollard , Jacelle Warren , Victoria McCreanor	PREDICT-TBI: Prediction and Diagnosis using Imaging and Clinical biomarkers Trial in Traumatic Brain Injury	0	0

Lead Investigator Name (RBWH staff in bold)	Other Study Investigators (RBWH staff in bold)	Research Project Title	Number of Patients Recruited in 2020	Total number of Patients Recruited
Frances Williamson	Cate Cameron, Jacelle Warren	Rib fractures in blunt chest trauma: factors including the use of regional analgesia and the presence of shoulder girdle injuries that influence daily opiate use	0	Data from 85 RBWH trauma patients
Frances Williamson	Kerena Grant, Jacelle Warren, Michael Handy	Trauma Tertiary Survey: Trauma service medical officers and trauma nurses detect similar rates of missed injuries	0	169
Luke Visscher	Anjali Prakash, Ross Crawford, Michael Schuetz, Beat Schmutz	Can statistical shape modelling of population variation in bony anatomy be used to improve orthopaedic surgery outcomes in terms of implant design and surgical planning compared to the standard	Use of data from existing databases – does not involve patient recruitment	Use of data from existing databases – does not involve patient recruitment
Jennifer Paratz	Cate Cameron, Jacelle Warren	Incidence and cause of mortality in burns survivors	0	Data from 4,134 RBWH Burns patients
Gary Mitchell	Claire Bertenshaw, Kirsten Vallmuur, Cate Cameron, Robert Eley, Victoria McCreanor, Andrew McKinlay	DINED: Delivery related Injuries in the ED; a prospective chart review of injuries occurring in meal delivery drivers on motorcycles, scooters and bicycles	0	0
Santomauro C	Mia McLanders, Cliff Pollard, Drew Rae, Penelope Sanderson, Sarah Pearce	Improving Emergency Trauma Care for Rural, Regional and Remote Queenslanders	0	0
Simon Platt	Beat Schmutz, James Wheeler, Samuel Morgan, Yohan Schmutz-Leong, Benjamin Huang	A volumetric analysis of the posterior malleolus segment in supination external rotation type 4 ankle fractures	Use of data from existing databases – does not involve patient recruitment	Use of data from existing databases – does not involve patient recruitment
Celeste Glasgow	Andrew Mayo, Jennifer Strong, Sue Laracy, Freyr Patterson, Jennifer Fleming, Terra Bredy	Enhancing Occupational Performance in Orthopaedic Trauma Patients with Distal Radial Fractures	0	0
Trevor Gervais	Paul McEniery, Michael Schuetz, Katie McMahon, Michael O'Sullivan, Aiman Al-Najjar, Nyoman Kurniawan, Jin Jin	Use of advanced magnetic resonance imaging to diagnose brachial plexus injuries and inform surgical intervention	0	0

Research Publications

Journal Articles

1. Buckley MS, Smithburger PL, Wong A, Fraser GL, **Reade MC**, Klein-Fedyshin M, Ardiles T, Kane-Gill SL. Dexmedetomidine for Facilitating Mechanical Ventilation Extubation in Difficult-to-Wean ICU Patients: Systematic Review and Meta-Analysis of Clinical Trials. *J Intensive Care Med*. July 2020. <https://doi.org/10.1177/0885066620937673>
2. Curtis K, Nahidi S, Gabbe B, **Vallmuur K**, Martin K, Shaban RZ, Christey G. Identifying the priority challenges in trauma care delivery for Australian and New Zealand trauma clinicians. *Injury*. 2020;51(9):2053-8. <https://doi.org/10.1016/j.injury.2020.07.033>
3. Desselle MR, Brown RA, James AR, **Midwinter MJ**, Powell SK, Woodruff MA. Augmented and virtual reality in surgery. *Comput Sci Eng*. 2020;22(3):18-26. <https://doi.org/10.1109/MCSE.2020.2972822>
4. Dhanani J, Pattison DA, Burge M, Williams J, Riedel B, Hicks RJ, **Reade MC**. Octreotide for resuscitation of cardiac arrest due to carcinoid crisis precipitated by novel peptide receptor radionuclide therapy (PRRT): A case report. *J Crit Care*. 2020;60:319-22. <https://doi.org/10.1016/j.jcrc.2020.08.011>
5. Dinsdale RJ, Hazeldine J, Al Tarrah K, Hampson P, Devi A, Ermogenous C, Bamford AL, Bishop J, Watts S, Kirkman E, Dalle Lucca JJ, **Midwinter M**, Woolley T, Foster M, Lord JM, Moiemmen N, Harrison P. Dysregulation of the actin scavenging system and inhibition of Dnase activity following severe thermal injury. *Br J Surg*. 2020;107(4):391-401. <https://doi.org/10.1002/bjs.11310>
6. Flint AW, Bailey M, Reid CM, Smith JA, Tran L, Wood EM, McQuilten ZK, **Reade MC**. Preoperative identification of cardiac surgery patients at risk of receiving a platelet transfusion: The Australian Cardiac Surgery Platelet Transfusion (ACSePT) risk prediction tool. *Transfusion*. 2020;60(10):2272-83. <https://doi.org/10.1111/trf.15990>
7. **Foster AL**, Cutbush K, Schuetz MA, Ezure Y, Crawford R, Paterson DL. Cutibacterium (Propionibacterium) acnes in shoulder surgery: A scoping review of strategies for prevention, diagnosis and treatment. *J Shoulder Elbow Surg*. 2020. <https://doi.org/10.1016/j.jse.2020.11.011>
8. **Foster AL**, Boot W, Stenger V, D'Este M, Jaiprakash A, Eglin D, Zeiter S, Richards RG, Moriarty TF. Single-stage revision of MRSA orthopedic device-related infection in sheep with an antibiotic-loaded hydrogel. *J Orthop Res*. 2020. <https://doi.org/10.1002/jor.24949>
9. Gantner D, Bragge P, Finfer S, Gabbe B, Varma D, Webb S, Waterson S, Saxena M, Rengarajoo P, **Reade M**. Management of Australian patients with severe traumatic brain injury: Are potentially harmful treatments still used? *J Neurotrauma*. 2020;37(24):2686-93. <https://doi.org/10.1089/neu.2020.7152>
10. Lum E, **McCreanor V**, Luo N, Graves N. Quality of life measured by EQ-5D at different treatment time points for coronary artery disease: Protocol for a systematic review and meta-analysis. *BMJ Open*. 2020;10(7):e039311. <https://doi.org/10.1136/bmjopen-2020-039311>
11. Pick V, **Douglas D**, New A, Libera M, Burridge L. Role-based goal planning: A new approach to enhance participation of rehabilitation patients with severe acquired brain injury. *J Australasian Rehab Nurses' Assoc*. 2020;23(1). <https://doi.org/10.33235/jarna.23.1.13-19>
12. Sarai H, **Schmutz B**, **Schuetz M**. Effects of ethnicity on proximal femoral intramedullary nail protrusion—a 3D computer graphical analysis. *Arch Orthop Trauma Surg*. 2020; <https://doi.org/10.1007/s00402-020-03539-8>
13. **Schmutz B**, Luthi M, Schmutz-Leong YK, Shulman R, Platt S. Morphological analysis of Gissane's angle utilising a statistical shape model of the calcaneus. *Arch Orthop Trauma Surg*. 2020; <https://doi.org/10.1007/s00402-020-03566-5>
14. Whitmore KA, Laupland KB, Vincent CM, Edwards FA, **Reade MC**. Changes in medical scientific publication associated with the COVID-19 pandemic. *Med J Aust*. 2020;213(11):496-9 e1. <https://doi.org/10.5694/mja2.50855>
15. Andrews R, Wynn MT, **Vallmuur K**, ter Hofstede AHM, Bosley E. A comparative process mining analysis of road trauma patient pathways. *Int J Environ Res Public Health*. 2020; <https://doi.org/10.3390/ijerphxx010000>. Accessed by 412
16. Asghar AK, Carpenter AM, Mudali JN, **Reade MC**, Wise R. Opinions of doctors working in South African critical care units regarding unconsented testing and empirical treatment of HIV-positive patients in ICU. *South Afr J Anaesth Analg*. 2020;26(1):38-44. <https://doi.org/10.36303/SAJAA.2020.26.1.2291>

17. Choi K-S, **Schmutz B**. Usability evaluation of 3D user interface for virtual planning of bone fixation plate placement. *Inform Med Unlocked*. 2020;19:100348. <https://doi.org/10.1016/j.imu.2020.100348>
18. **Foster AL**, Moriarty F, Trampuz A, Jaiprakash A, Burch MA, Crawford R, Paterson DL, Metsemakers W-J, **Schuetz M**, Richards RG. Fracture-related infection: Current methods for prevention and treatment. *Expert Rev Anti Infect Ther*. 2020;18(4):307-321. <https://doi.org/10.1080/14787210.2020.1729740>
19. **Foster AL**, Moriarty TF, Zalavras C, Morgenstern M, Jaiprakash A, Crawford R, Burch M-A, Boot W, Tetsworth K, Miclau TJ, Ochsner P, **Schuetz MA**, Richards RG, Metsemakers W-J. The influence of biomechanical stability on bone healing and fracture-related infection: The legacy of Stephan Perren. *Injury*. 2020, Jun 26. <https://doi.org/10.1016/j.injury.2020.06.044>
20. Hasan J, Xu Y, Yarlagadda T, **Schuetz M**, Spann K, Yarlagadda PKDV. Antiviral and antibacterial nanostructured surfaces with excellent mechanical properties for hospital applications. *ACS Biomater Sci & Eng*. 2020; <https://doi.org/10.1021/acsbiomaterials.0c00348>
21. **Holley A**, Cohen J, **Reade M**, Laupland KB, Lipman J. New guidelines for the management of severe thermal burns in the acute phase in adults and children: Is it time for a global surviving burn injury campaign (SBIC)? *Anaesth Crit Care Pain Med*. 2020;S2352-5568(20)30041-30042. <https://doi.org/10.1016/j.accpm.2020.03.009>
22. **Holley AD**, **Reade MC**, Lipman J, Cohen J. There is no fire without smoke! Pathophysiology and treatment of inhalational injury in burns: A narrative review. *Anaesth Intens Care*. 2020. <https://doi.org/10.1177/0310057X20913282>
23. Karbysheva S, Di Luca M, Butini ME, Winkler T, **Schuetz M**, Trampuz A. Comparison of sonication with chemical biofilm dislodgement methods using chelating and reducing agents: Implications for the microbiological diagnosis of implant associated infection. *PLoS One*. 2020;15(4):e0231389. <https://doi.org/10.1371/journal.pone.0231389>
24. Lee-Archer PF, von Ungern-Sternberg BS, **Reade M**, Betts M, Haenke D, Keys A, Rance T, Gibbons K, Long D. The effect of dexmedetomidine on postoperative behaviour change in children: A randomised controlled trial. *Anaesthesia*. 2020. <https://doi.org/10.1111/anae.15117>
25. Lystad RP, Fajardo Pulido D, Peters L, Johnstone M, Ellis LA, Braithwaite J, Wuthrich V, Amin J, **Cameron CM**, Mitchell RJ. Monitoring health and well-being in emerging adults: Protocol for a pilot longitudinal cohort study. *JMIR Res Protoc*. 2020;9(4):e16108. <https://doi.org/10.2196/16108>
26. Mackintosh D, Way M, **Reade MC**, Dhanani J. Short- and long-term outcomes of neutropenic cancer patients in intensive care according to requirement for invasive ventilation. *Intern Med J*. 2020;50(5):603-11. <https://doi.org/10.1111/imj.14721>
27. Mahoney AJ, **Reade MC**. Evaluating quality in trauma systems. In: Vincent JL. (eds) *Annual Update in Intensive Care and Emergency Medicine 2020* (pp.397-412). Springer, Cham. https://doi.org/10.1007/978-3-030-37323-8_31
28. McCalman J, Kippen R, McMeeken J, Hopper J, **Reade M**. Early results from the 'Diggers to Veterans' longitudinal study of Australian men who served in the First World War : Short-and long-term mortality of early enlisters. *Historical Life Course Studies*. 2019; 8, 52-72. <https://ehps-net.eu/volume/volume-8>
29. Mitchell R, **Cameron CM**, Lystad RP, Nielssen O, McMaugh A, Herkes G, Schniering C, Hng TM. Impact of chronic health conditions and injury on school performance and health outcomes in New South Wales, Australia: A retrospective record linkage study protocol. *BMJ Paediatr Open*. 2019;3(1):e000530. <http://dx.doi.org/10.1136/bmjpo-2019-000530>
30. Roberts K, Thom O, Eley R, Cabilan CJ, **Vallmuur K**. Long term impact of ladder-related injuries as measured by the AqoL instrument. *PLoS One*. 2020;15(6):e0235092. <https://doi.org/10.1371/journal.pone.0235092>
31. **Schmutz B**, Schuetz F, Alkadhi H, Ruhli F, Eppenberger P. Secular evolution of femoral morphology from a clinical perspective. *Clin Anat*. 2020. <https://doi.org/10.1002/ca.23585>
32. Smith A, Ritchie C, **Warren J**, Sterling M. Exercise induced hypoalgesia is impaired in chronic whiplash associated disorders (WAD) with both aerobic and isometric exercise. *Clin J Pain*. 2020;36(8):601-611. <https://doi.org/10.1097/AJP.0000000000000845>
33. Sparks DS, Saifzadeh S, Savi FM, Dlaska CE, Berner A, Henkel J, Reichert JC, Wullschlegler M, Ren J, Cipitria A, McGovern JA, Steck R, Wagels M, Woodruff MA, **Schuetz MA**, Hutmacher DW. A preclinical large-animal model for the assessment of critical-size load-bearing bone defect reconstruction. *Nat Protoc*. 2020;15(3):877-924. <https://doi.org/10.1038/s41596-019-0271-2>

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34. Wilson AJ, Magee F, Bailey M, Pilcher DV, French C, Nichol A, Udy A, Hodgson CL, Cooper DJ, **Reade MC**, Young P, Bellomo R. Characteristics and outcomes of critically ill trauma patients in Australia and New Zealand (2005-2017). Crit Care Med. 2020;48(5):717-724. <https://doi.org/10.1097/ccm.0000000000004284>
 35. Zumsteg DM, Chu CE, **Midwinter MJ**. Radiographic assessment of sarcopenia in the trauma setting: A systematic review. Trauma Surg Acute Care Open. 2020;5(1):e000414. <http://dx.doi.org/10.1136/tsaco-2019-000414>
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Conference Presentations – Invited Speaker, Oral and Poster

Invited Speaker

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1. **Warren J**. Monitoring injury trends during COVID-19 pandemic: A priority. Statewide Trauma Clinical Network, 2020. Brisbane
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Oral Presentations

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1. Desselle M, Holland L, **McKittrick A**, Altizer Jr R, **Gray P**, **Brown J**. Augmenting the design box: Virtual reality pain relief for Australian burns survivors case study. IEEE 8th International Conference on Serious Games and Applications for Health, 2020. Virtual
 2. **Williamson F**, **Warren J**, **Cameron C**. Rib fractures in blunt chest trauma: factors that influence daily opiate use. Australasian Trauma Society virtual conference – Trauma Care in a Pandemic and Beyond, 2020. Virtual
 3. **Betar N**, **Warren J**, **Vujcich E**, **Brown J**. Intravenous iron therapy to treat anaemia in patients with big burns at the Royal Brisbane and Women’s Hospital. Australasian Trauma Society virtual conference – Trauma Care in a Pandemic and Beyond, Virtual
 4. **Warren J**. Looking beyond the initial injury: Long-term burden and cost to the healthcare system for the treatment of road traffic crash injury in Queensland. Impact Makers 2020 Conference, 2020. Virtual
 5. **Foster AL**, Rotman S, Onsea J, Crawford R, Eglin D, Richards G, **Schuetz M**, Moriarty TF. Developing a Bacteriophage-Loaded Hydrogel for Treating Orthopaedic Infection. AOA 2020 QLD Branch Annual Scientific Meeting, 2020. Gold Coast
 6. **Pollard C**, **Reade M**, **Midwinter M**, Phillips J, **Redmond M**, **Rudd M**, Walker D, Williams J. Providing specialist support to a deployed force using augmented reality. 2020 Australian Military Medicine Association Conference, 2020. Virtual
 7. **Brown J**. Acute burns work: using antibiotics sparingly to prevent resistance in burns. The Herston Health Precinct Symposium, 2020. Brisbane
 8. **Heng L**. Implementation of AR technology in complex orthopaedic surgeries across RBWH & Mackay Base Hospital. The Herston Health Precinct Symposium, 2020. Brisbane
 9. **Schuetz M**. Augmented reality demonstration. The Herston Health Precinct Symposium, 2020. Brisbane
 10. **Banu S**, **Warren J**, **Cameron C**, **McCreanor V**, **Pollard C**, **Vallmuur K**. Penetrating injury related hospitalisations and patient outcomes in Queensland over a 5-year period. The Herston Health Precinct Symposium, 2020. Brisbane
 11. **Staines E**, **Lyrstedt A-L**, **Brown N**, Nasrallah F, **O’Sullivan M**, **Pollard C**, **Cullen L**, Taylor J, Locke W, Ross J, **Mitchell G**. ccfDNA BRAIN Study – Is circulating cell-free DNA a clinically useful biomarker for the diagnosis of mild traumatic brain injury?. The Herston Health Precinct Symposium, 2020. Brisbane
 12. **Warren J**. What does data tell us? Frequency and costs of Orthopaedic device-related infection. The Herston Health Precinct Symposium, 2020. Brisbane
 13. **Foster A**, **Woods B**. mDRIFT: multidisciplinary Device-Related Infection Team. The Herston Health Precinct Symposium, 2020. Brisbane
 14. **Schuetz M**. Implant-related infection session – Discussion and summary. The Herston Health Precinct Symposium, 2020. Brisbane
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Poster Presentations

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1. **Williamson F, Warren J, Cameron C.** Poster. Daily opiate use in blunt chest trauma: impact of rib fracture displacement, shoulder injury and adjunct analgesic therapies. The Herston Health Precinct Symposium, 2020. Brisbane
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