

# RESEARCHEXECUTIVE DIRECTORREPORT



Merrilyn Banks Executive Director Research Services

## RBWHRESEARCH**COUNCIL**

Research at the Royal continues to grow as demonstrated in this review of the outcomes from 2019. There were 476 staff that identified as having a research role at RBWH, leading close to 700 individual research projects and collaborating in another 500 research projects. Over 300 students undertaking research projects at an honours, masters or doctorate level were supervised, and 16 staff completed their PhDs!

Our researchers received \$40 million for conducting research in 2019. Over 900 research articles were published in peer reviewed journals and our researchers presented over 1000 oral or poster presentations at national and international conferences.

Research Services is committed to working with our clinician researchers to continue to further grow research capacity and capability through making research processes easier and improving access to resources to conduct research. The RBWH Research Council is made up of key Service Line and individual researchers who provide advice on improving research at the Royal.

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Back row (L-R): Emma Raymond (Research Services), Sunil Lakhani (Pathology Qld), Gordon McGurk (HREC), Leah Hoppe (Research Services), Jye Smith (Nuc.Med), Marita Prior (Med. Imaging), Ian Parker (Allied Health), Robert Tindle (Research Advisor), Niall Higgins (Mental Health), Nicole Marsh (Nursing)

Absent: Jeff Lipman, David Cavallucci, David Paterson, Adrienne Young, Tara McCurdie, Katie Foxcroft, Steven Lane, Therese Starr, Kevin Laupland, Michael Schuetz, Callum Tear, Kaelah Bosanquet, Rebekah Steele

Front row (L-R): Louise Cullen (Emergency Medicine), Leonie Callaway (Women's and Newborn), Merrilyn Banks (Research Services – Chair), Victoria Eley (Anaesthetics), Helen Healy (Renal Medicine)

# RESEARCHETHICS&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 35 members from a variety of backgrounds whose diverse expertise allows a rigorous yet practical review of applications. The HREC is constantly improving its review processes and is currently trialing a dynamic review process which will minimise the number of comments that need to be considered post-meeting. The Committee uses research expertise from within 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. Further changes to processes will decrease this time further. The HREC welcomes input into how to make processes more efficient to meet the needs of patients, participants in research and researchers.

| Name                    | Role                             | Name                    | Role  |
|-------------------------|----------------------------------|-------------------------|---|
| Dr Gordon McGurk        | Chairperson                      | A/Prof Jeremy Cohen     | Practitioner                                |
| Ms Lorelle Whittaker    | Layperson                        | A/Prof Glen Kennedy     | Practitioner                                |
| Ms Lauren Milner        | Layperson                        | Dr Akwasi Amoako        | Practitioner                                |
| Mrs Lorna Heaslop       | Layperson – Retired Practitioner | Dr Thangeswaran Rudra   | Practitioner                                |
| Ms Glenys Frederiksen   | Layperson                        | Ms Erika Vardanega      | Research Nurse – Clinical Trial Coordinator |
| Mr John McDonnell       | Layperson                        | Ms Ngaire Latch         | NUM, Sexual Health and HIV Service          |
| Mr Sumit Desai          | Layperson                        | Most Rev William Morris | Religious Representative                    |
| Dr Kylie Wall           | Speech Pathologist               | Rev/Dr Mervyn Lander    | Religious Representative                    |
| Prof Pauline Ford       | Dentist                          | Mr Shane Evans          | Alternate Lawyer                            |
| Ms Okgi Sargent         | Registered Nurse                 | Ms Sonja Read           | Alternate Lawyer                            |
| Adj A/Prof Angela White | Clinical Psychologist            | Mr Edward Hooper        | Alternate Lawyer                            |
| Ms Patricia Cabrera     | Lawyer                           | Ms Nicole Morgan        | Alternate Lawyer                            |
| Ms Champika Pattullo    | Pharmacist and Researcher        | Ms Kristi Geddes        | Alternate Lawyer                            |
| Ms Emma Savage          | Researcher                       | Ms Cara Black           | Lawyer                                      |
| Ms Kate Lingard         | Researcher                       | Ms Lisa Pomery          | IT Expert                                   |
| Dr Rodney Cusack        | Researcher                       | Dr Peter Glazebrook     | Science Advisor                             |
|                         |                                  |                         |   |

### **HREC Members for 2019**

**Research governance** is the process whereby institutions ensure that research conducted under their auspices are properly accounted for and governed. 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.





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50 0

HREA's



QA/Audit Projects

LNRs

Authorised Prescribers

Left-Right: Emma Raymond (Business Manager), Tayler Griffin (A/Administration Officer, HREC), Rebekah Steel (Research Governance Manager), Ann-Maree Gordon (Coordinator, HREC), Mamta Tanwar (Assistant Coordinator, HREC), Monique Johnson (Administration Officer, RGO), Merrilyn Banks (Executive Director, Research), Therese Starr (Research Coordinator), Janani Balakrishnan (Research Support Officer), Leah Hoppe (Executive Support Officer)

Absent:

nt: Professor Jeffrey Lipman (Research Ambassador), Gordon McGurk (Chairperson HREC), Marita Prior (Research Coordinator)

# RBWH&RBWHFOUNDATION RESEARCHADVISORYCOMMITTEE

### The 2019 Membership included:

| Prof Gerard Byrne – <i>Chair</i>   | Internal            | Dr Rachel Walker    | External |
|------------------------------------|---------------------|---------------------|----------|
| Adjunct Professor Merrilyn Banks   | Internal            | Prof Claire Rickard | External |
| Adjunct Associate Prof Ian Coombes | Internal            | Prof Joan Webster   | External |
| Prof Sandra Capra                  | External            | Prof Helen Healy    | Internal |
| Prof Grant Ramm                    | External            | Prof Jeff Lipman    | Internal |
| Prof Robert Ware                   | External            | Prof Frank Gardiner | External |
| Prof David Paterson                | Internal / External |                     |          |

# In 2019 the RBWH received an astounding \$2,400,000.00 towards scholarships, project grants and fellowships, including \$1,500,000.00 received via the Private Practice Trust fund and \$900,000.00 from the RBWH Foundation.

Scholarships are awarded on a competitive basis to clinicians undertaking a research higher degree and are awarded for three years with renewals dependant on successful progress. In 2019, 14 new and 19 renewal scholarships were awarded.

Project grant funding of up to \$40,000 was awarded to ten early career researchers and 15 experience researchers after a competitive grant application process that had over 140 applications. Three fellowships of \$50,000 for two years were also awarded to researchers who recently completely their PhD's.

### RBWH Foundation Robert and Janelle Bird Post-Doctoral Fellows (2019-2020):

| Name         | Title  | Summary  |
|--------------|--|--|
| Elise Button | IDENTIFY Study<br>Identifying<br>people with a<br>haematological<br>malignancy who<br>are at risk of<br>deteriorating<br>and dying | People with haematological malignancies often experience suboptimal care near the end<br>of life due to an unpredictable illness trajectory. This research will help us to understand<br>who is at risk of dying and explore the provision of best-practice care near the end of life.<br>A prospective prognostic study will validate previously developed clinical indicators that<br>identify risk of deteriorating and dying in people with a haematological malignancy. |
| -            | Towards improved<br>understanding<br>of incontinence<br>in the acute   | The research program will provide foundation data to address gaps in understanding<br>the burden and predictors of incontinence, hospital-acquired incontinence and<br>incontinence-associated complications within the hospital setting. In addition,<br>the research program will explore the continence care experience of older inpatients.  |

Jill Campbell

Improving the accuracy of perioperative bloodpressure monitoring in obese patients

care setting;

exploratory study

A multisite

Victoria Eley

the research program will explore the continence care experience of older inpatients. The results of these studies will inform a larger multicomponent intervention trial with the aim of advancing the provision of gold standard continence care in the hospital setting.

Standard rectangular blood pressure cuffs are the wrong size and shape for obese patients. Use of these cuffs can provide inaccurate measurements and compromises the perioperative care of obese patients. The ClearSight<sup>™</sup> finger cuff avoids the problems of arm shape but has not been tested in obese patients. The equipment requires validation in obese patients prior to clinical use. The projects undertaken during this Fellowship aim to validate the ClearSight<sup>™</sup> finger cuff in obese pregnant and non-pregnant patients. Translation into clinical practice will improve the perioperative care of obese patients who make up an increasing proportion of surgical patients at the RBWH. By providing funding for these two projects, The Robert and Janelle Bird Post-Doctoral Fellowship was instrumental in facilitating A/Prof Eley being awarded \$100 000 from the Australian and New Zealand College of Anaesthetists in the form of an Academic Enhancement Grant, to further expand this program of research.

## HERSTON STATEOFTHEART HEALTHCARE SYMPOSIUM

The annual healthcare symposium was in its 28<sup>th</sup> year and was an opportunity to showcase the facilities strengths in both research and innovation. It was a time to strengthen partnerships and reinforcing the commitment to provide a wealth of opportunities for physicians, nurses, health professionals, researchers and students. 2019 saw the symposium work closely with our academic and research partners, The University of Queensland, Queensland University of Technology, QIMR Berghofer Medical Research Institute and Griffith University. The RBWH Foundation also played a huge part, not only with financial support, but also providing the opportunity to liaise with RBWH consumers. The vision for 2019 Symposium was to showcase the facilities and potential of Herston as a Campus as we move into the future.

The Symposium was a huge success, with over 3000 registrations over the four days. It showcased the advancements and innovations of technology and how it could assist in health care.

As a novel way of presenting all the posters were an electronic format, with abstract Q&A sessions and orals presented via the online portal ZOOM with the ability to ask questions via Slido. A record breaking 194 abstracts were submitted with 28 selected for online oral presentations accompanying its ePoster. These were designed to showcase just some of the research projects that have been underway across the campus and highlight the advancements of which both the Herston Campus and our partners are making. Social media was also utilised for the event, with promotion occurring on both Facebook and Twitter as well as through the RBWH/Metro-North Communications Team.

A final new achievement was through a Digital signage that was placed throughout the hospital displaying the ePosters and broadcasting the online component of the program.

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

- RBWH Foundation Best overall Dr Andrew Redmond: Penicillin allergy need not be forever
- Discovery and Innovation Research Award Suzanne Parker: Translating innovation in microsampling into a clinical pharmacokinetic study of vancomycin in critically ill patients
- The Professor Lawrie Powell AC Early Career Research Award Martha Druery: Health-Related Quality of Life outcomes post-major burn injuries in adults a longitudinal exploratory study
- Health Practitioners Research Award Anna Edwards: Nutrition outcomes post implantation of a
  pre-treatment model of care for patients with head and neck cancer receiving chemoradiotherapy.
- Dr Stephen Morrison Clinical Research Award Cathy Liu: Gestational age at diagnosis of asymptomatic short cervix and preterm birth risk
- Nursing Research Award Dr Nicole Gavin: Estimating Prevalence of Impaired Skin surrOunding DevicEs in cancer care: the preliminary results of a prospective study
- The Professor William Egerton Award for Medical Research Maggie Keys: The volume of polyethylene terephthalate plastic – PET – accumulated in one day of surgical operations at RBWH: a pilot audit.

# SYMPOSIUM2019















|  | Publications        |                       |              | Presentations National<br>and International |  |
|--|---------------------|-----------------------|--------------|---|--|
| tesearch Group / Department  | Journal<br>Articles | Books and<br>Chapters | Invited/Oral | Posters                                     |  |
| LLIED HEALTH PROFESSIONALS   |                     |                       |              |   |  |
| entre for Allied Health Research                                   | 2                   | 0                     | 4            | 1   |  |
| epartment of Nutrition and Dietetics                               | 20                  | 1                     | 28           | 17  |  |
| epartment of Occupational Therapy                                  | 7                   | 0                     | 8            | 5   |  |
| epartment of Physiotherapy   | 20                  | 0                     | 13           | 6   |  |
| epartment of Psychology  | 1                   | 0                     | 0            | 0   |  |
| epartment of Rehabilitation Engineering, Orthotics and Prosthetics | 0                   | 0                     | 0            | 2   |  |
| epartment of Social Work   | 4                   | 0                     | 4            | 1   |  |
| epartment of Speech Pathology and Audiology                        | 10                  | 0                     | 9            | 6   |  |
| ANCER CARE SERVICES  |                     |                       |              |   |  |
| llied Health Professions   | 9                   | 0                     | 18           | 13  |  |
| ancer Nursing Professorial Precinct                                | 15                  | 0                     | 21           | 11  |  |
| laematology and Bone Marrow Transplant                             | 31                  | 0                     | 29           | 8   |  |
| laemophilia Centre   | 2                   | 0                     | 1            | 5   |  |
| Nedical Oncology   | 51                  | 0                     | 20           | 49  |  |
| adiation Oncology  | 34                  | 0                     | 47           | 13  |  |
| RITICAL CARE AND CLINICAL SUPPORT SERVICES                         |                     |                       |              |   |  |
| mergency and Trauma Centre   | 25                  | 0                     | 7            | 3   |  |
| enetic Health Queensland   | 29                  | 1                     | 31           | 7   |  |
| lyperbaric Medicine Services                                       | 0                   | 0                     | 0            | 1   |  |
| ntensive Care Services   | 61                  | 0                     | 18           | 0   |  |
| rofessor Tess Craymond Multidisciplinary Pain Centre               | 4                   | 0                     | 1            | 0   |  |
| kin Integrity  | 6                   | 8                     | 4            | 1   |  |
| NTERNAL MEDICINE SERVICES  |                     |                       |              |   |  |
| epartment of Cardiology  | 33                  | 1                     | 51           | 9   |  |
| epartment of Clinical Immunology and Allergy                       | 0                   | 0                     | 0            | 0   |  |
| epartment of Clinical Pharmacology                                 | 8                   | 0                     | 11           | 6   |  |
| epartment of Endocrinology and Diabetes                            | 23                  | 1                     | 3            | 4   |  |
| epartment of Gastroenterology and Hepatology                       | 32                  | 2                     | 18           | 14  |  |
| epartment of Infectious Diseases                                   | 44                  | 0                     | 11           | 10  |  |
| nternal Medicine Research Unit                                     | 18                  | 5                     | 15           | 2   |  |
| idney Health Service   | 53                  | 5                     | 42           | 40  |  |
| leurology – Epilepsy   | 21                  | 0                     | 2            | 0   |  |
| leurology – Motor Neurone Disease                                  | 24                  | 1                     | 4            | 3   |  |
| leurology – Stroke   | 12                  | 0                     | 8            | 0   |  |
| luclear Medicine Department  | 8                   | 0                     | 13           | 0   |  |
| alliative and Supportive Care                                      | 2                   | 0                     | 5            | 0   |  |
| harmacy  | 70                  | 0                     | 40           | 41  |  |
|  |                     |                       |              |   |  |

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## PUBLICATIONS/PRESENTATIONSSUMMARYTABLE2019 (CONT)

|  | Publi               | cations               | Presentation<br>and Inter |         |
|--|---------------------|-----------------------|---------------------------|---------|
| Research Group / Department  | Journal<br>Articles | Books and<br>Chapters | Invited /<br>Oral         | Posters |
| INTERNAL MEDICINE SERVICES (cont)  |                     |                       |                           |         |
| QLD State-wide Antimicrobial Stewardship   | 2                   | 0                     | 1                         | 0       |
| Department of Thoracic Medicine  | 11                  | 5                     | 4                         | 2       |
| MEDICAL IMAGING  |                     |                       |                           |         |
| Medical Imaging  | 12                  | 6                     | 34                        | 13      |
| MEDICAL SERVICES   |                     |                       |                           |         |
| Quality, Innovation & Patient Safety   | 2                   | 0                     | 0                         | 0       |
| MENTAL HEALTH SERVICES   |                     |                       |                           |         |
| Metro North Mental Health Services   | 69                  | 2                     | 47                        | 6       |
| NURSING AND MIDWIFERY SERVICES   |                     |                       |                           |         |
| Nursing & Midwifery Research Centre  | 31                  | 1                     | 16                        | 12      |
| RBWH RESEARCH SERVICES   |                     |                       |                           |         |
| Herston Imaging Research Facility  | 26                  | 0                     | 8                         | 10      |
| Jamieson Trauma Institute  | 24                  | 0                     | 41                        | 10      |
| Centre for Palliative Care Research and Education  | 30                  | 2                     | 23                        | 7       |
| SURGICAL AND PERIOPERATIVE SERVICES  |                     |                       |                           |         |
| Department of Anaesthesia and Perioperative Medicine /Research<br>Interest in Anaesthesia (RIGA) | 28                  | 2                     | 48                        | 14      |
| Department of General Surgery – Unit 1 Breast /Endocrine   | 3                   | 0                     | 1                         | 0       |
| Department of General Surgery – Unit 2 Hepato-Pancreatic Biliary (HPB)                           | 1                   | 0                     | 9                         | 0       |
| Department of General Surgery – Unit 3 Colorectal  | 14                  | 1                     | 10                        | 5       |
| Department of General Surgery – Unit 4 Upper Gastrointestinal /Bariatric                         | 3                   | 0                     | 5                         | 6       |
| Department of General Surgery – Unit 5 Acute Surgical Unit (ASU)                                 | 0                   | 0                     | 0                         | 2       |
| Department of Ophthalmology  | 8                   | 0                     | 22                        | 3       |
| Department of Oral & Maxillofacial Surgery   | 10                  | 0                     | 7                         | 0       |
| Department of Orthopaedic Surgery  | 15                  | 2                     | 82                        | 0       |
| Department of Otolaryngology, Head and Neck Surgery<br><i>(Ear, Nose and Throat)</i>             | 7                   | 0                     | 11                        | 0       |
| Department of Plastic and Reconstructive Surgery   | 0                   | 0                     | 4                         | 0       |
| Department of Urology  | 41                  | 0                     | 2                         | 4       |
| Department of Vascular Surgery   | 6                   | 0                     | 6                         | 7       |
| Kenneth G Jamieson, Department of Neurosurgery   | 10                  | 0                     | 5                         | 3       |
| Professor Stuart Pegg Burns Centre   | 0                   | 2                     | 17                        | 0       |
| Trauma Service   | 0                   | 0                     | 5                         | 1       |
| WOMEN'S AND NEWBORN SERVICES   |                     |                       |                           |         |
| Grantley Stable Neonatal Unit  | 8                   | 0                     | 7                         | 9       |
| Obstetrics and Gynaecology   | 28                  | 0                     | 8                         | 44      |
| Obstetric Medicine   | 12                  | 0                     | 15                        | 24      |
| Perinatal Research Centre  | 11                  | 0                     | 16                        | 10      |
| Queensland Centre for Gynaecological Cancer  | 7                   | 0                     | 6                         | 1       |

# THECENTREFOR PALLIATIVECARE RESEARCH& EDUCATION



Patsy Yates Distinguished Professor 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 2019:

The Clinical Research Program Leader Prof Janet Hardy 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 multi-centre trial funded by the landmark Medical Research Future Fund is progressing well in 2019, with medicinal cannabinoids trials open and recruiting well, across 5 sites in Queensland. CPCRE staff have continued research projects funded by National Health and Medical Research Council (NHMRC), Australian Research Council (ARC), Mater Medical Research Institute (MMRI), Department of Health (DOH), Cancer Australia, Cancer Council NSW, and the Australian Government. Research projects are multi-disciplinary and are across institutions, and results have been published in national and international peer reviewed publications. CPCRE staff hold appointments on state, national and international Palliative Care/Oncological and 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 and 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 and the Annual Update Symposium (topic rotates three 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:

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- 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.

## Supervised Post-Graduate Research Students

| <b>Name</b><br>(RBWH staff in bold) | Current Studies<br>(e.g. PhD, Masters etc.)<br>University (duration) | Research Project Title  | Supervisors<br>(RBWH staff in bold)                    |
|-------------------------------------|--|---|--|
| Vanessa Brunelli                    | PhD, QUT (2013-2019)   | Development of a model of engagement designed to<br>enhance specialist cancer nurse abilities to support<br>people living with lung cancer in self-management                               | Patsy Yates, Carol Windsor                             |
| Doreen Tapsall                      | Professional Doctorate,<br>QUT (2011-2019)                           | Factors influencing Nurses engagement in continuing professional development in cancer nursing  | <b>Patsy Yates,</b><br>Kimberly Alexander              |
| Alison Bowers                       | PhD, QUT (2016-2020)   | Paediatric life-limiting conditions: prevalence and palliative care needs   | Patsy Yates, Raymond Chan                              |
| Rae Blades                          | Masters by Research,<br>QUT (2016-2020)                              | The prevention and treatment of radiation dermatitis<br>in patients with head and neck cancer using StrataXRT,<br>is more cost effective than standard care during and<br>post radiotherapy | <b>Patsy Yates,</b> Raymond Chan,<br>Steven McPhail    |
| Cara Cabilan                        | Masters by Research,<br>QUT (2014-2019)                              | The physical activity, sedentary behaviour, functional status, and quality of life of colorectal cancer patients within six months after curative treatment                                 | Kimberly Alexander,<br><b>Patsy Yates,</b> Sonia Hines |
| Piyada Chaisri                      | PhD, QUT (2018-2022)   | Health related quality of life in children with cancer in Thailand  | Patsy Yates, Natalie Bradford                          |
| Dianne Legge                        | Masters by Research,<br>QUT (2015-2019)                              | Supportive care needs of people diagnosed with low-grade glioma (LGG) in the 3 years post diagnosis   | <b>Patsy Yates,</b> Danette<br>Langbecker              |
| Robyn Matthews                      | Masters by Research,<br>QUT (2016-2021)                              | The preparedness of novice cancer nurses in delivering end-of-life care in the acute oncology hospital setting  | <b>Patsy Yates,</b> Elise Button,<br>Raymond Chan      |
| Carla Thamm                         | PhD, QUT (2012-2021)   | An investigation of how sociocultural factors influence<br>health care professionals' and patients' experience of<br>head and neck cancer and its treatment                                 | <b>Patsy Yates,</b><br>Sandie McCarthy                 |
| Alisha Wintour                      | Masters by Research,<br>QUT (2016-2020)                              | Evaluation of an information pamphlet for HPV positive oropharyngeal cancer patients  | <b>Patsy Yates,</b><br>Kimberly Alexander              |
| Cynthia Akuoko                      | PhD, QUT (2017-2021)   | Achieving health services and supportive care needs of women with advanced breast cancer in Ghana   | Patsy Yates, Shirley Chambers                          |
| Wendy O'Dea                         | Masters of Philosophy,<br>QUT (2018-2022)                            | What is the preparedness of cancer nurses caring for patients receiving immunotherapy   | Raymond Chan, <b>Patsy Yates</b>                       |
| Theodora Ogle                       | PhD, QUT (2017-2023)   | Self-initiated comfort strategies for chemotherapy-<br>induced peripheral neuropathy  | Kim Alexander, <b>Patsy Yates,</b><br>Chris Miaskowski |
| Clare Quaglia                       | Masters of Philosophy,<br>QUT (2018-2022)                            | The use of comprehensive smart phone applications<br>to improve continuity of care and quality of life in<br>patients undergoing treatment for cancer                                       | Kimberly Alexander,<br>Patsy Yates                     |
| Porawan<br>Witwaranukool            | PhD, QUT (2017-2021)   | Implementing evidence based physical activity and exercise guidelines by oncology nurses in Thailand  | Patsy Yates, Raymond Chan                              |
| Saroeun Ven                         | Masters of Philosophy,<br>QUT (2019-2023)                            | Unmet needs of informal carers of people living with life-limiting illness and receiving palliative care  | Shirley Chambers,<br><b>Patsy Yates,</b> Jason Mills   |
| Alana Delaforce                     | PhD, University of<br>Newcastle (2018-2020)                          | A theoretical analysis of the barriers and facilitators to implementing patient blood management guidelines: a mixed methods restricted review  | Jed Duff, Judy Munday,<br>Janet Hardy                  |
| Thomas Dilana                       | PhD, University of<br>Queensland (2018-2020)                         | Patient attitudes towards medicinal cannabis  | <b>Janet Hardy,</b> Rebecca Olson,<br>Phillip Good     |

## **RBWH Research Staff with research roles, positions or appointments:** e.g. Coordinators, Fellow, Adjunct and Honorary appointments

| Name<br>(RBWH Staff in bold) | Type of Position | Funding Source<br>(operational/external/in-kind) | Research Program    | Affiliated University/ies                             |
|------------------------------|------------------|--|---------------------|---|
| John Haberecht               | Visiting Fellow  | In kind  | Palliative Care     | Queensland University of Technology<br>(2016-current) |
| Patsy Yates                  | Honorary Fellow  | In kind  | Faculty of Business | University of Wollongong (2019-current)               |

## Current RBWH Research Group / Department Led Research Activity

| RBWH Research<br>Group / Department<br>Led Researchers<br>(RBWH staff in bold) | <b>Collaborative Researchers and Others</b><br>( <i>RBWH staff in bold</i> )  | Research Project Title   |
|--|---|--|
| Hardy, J., Yates, P  | Hardy, J., Good, P., Lintzeris, N., Martin, J.,<br>Yates, P., Chye, R., Haywood, A., Olsen, R   | Medicinal cannabinoids to relieve symptom burden in the palliative care of patients with advanced cancer   |
| Yates, P   | <b>Yates, P.,</b> Mitchell, G., Currow, D., Eagar, K.,<br>Edwards, H., Gardner, G., Willmott, L., Bonner, A.,<br>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   | <b>Yates, P.,</b> Alexander, K., Miaskowski, C., Chan, R.,<br>McCarthy, A., McPhail, S., Wyld, D., Skerman, H                         | A sequential multiple assignment randomized trial (SMART)<br>of nursing interventions to reduce pain associated with<br>chemotherapy induced peripheral neuropathy |

## Collaborative Research Activity involving RBWH Research Group / Department

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

### **Research Grants**

| <b>Investigators</b><br>(RBWH staff in bold)   | RBWH Research<br>Groups /<br>Departments                | Project Title  | Granting Body   | Total of<br>funds<br>awarded | Funds<br>used in<br>2019 | Years         |
|--|---|--|---|------------------------------|--------------------------|---------------|
| <b>Hardy, J.,</b> Good, P., Lintzeris,<br>N., Martin, J., <b>Yates, P.,</b><br>Chye, R., Haywood, A.,<br>Olsen, R        | Centre for Palliative<br>Care Research and<br>Education | Medicinal cannabinoids to<br>relieve symptom burden in the<br>palliative care of patients with<br>advanced cancer  | The<br>Commonwealth<br>of Australia,<br>Department of<br>Health, Medical<br>Research Future<br>Fund | \$1,363,040                  | \$356,000                | 2018-<br>2021 |
| Danby, S., Ekberg, S.,<br>Rendle-Short, J., <b>Yates, P.,</b><br>Herbert, A., Bradford, N.,<br>Bluebond-Langner, M       | Centre for Palliative<br>Care Research and<br>Education | Extraordinary yet mundane<br>talk: children navigating<br>palliative care  | Australian<br>Research Council<br>Discovery Grant   | \$588,592                    | \$154,434                | 2018-<br>2021 |
| Bradford, N., <b>Yates, P.,</b><br>Chan, R., and<br>Tjondronegoro, D   | Centre for Palliative<br>Care Research and<br>Education | RESPONse: Remote Symptom<br>Management in Paediatric<br>Oncology   | Children's Health<br>Foundation<br>Queensland   | \$255,370                    | \$78,609                 | 2018-<br>2020 |
| Juraskova, I., Butow, P.,<br>Laidsaar-Powell, R., Boyle, F.,<br><b>Yates, P.,</b> Schofield, P., Kay, J.<br>and Costa, D | Centre for Palliative<br>Care Research and<br>Education | Empowering the clinician-<br>patient-carer TRIO: RCT of novel<br>online education modules to<br>facilitate effective family carer<br>involvement in oncology | Cancer Australia<br>and Cancer Council<br>NSW   | \$593,202                    | \$197,065                | 2018-<br>2020 |

## Research Grants (cont)

| Investigators<br>(RBWH staff in bold)   | RBWH Research<br>Groups /<br>Departments                | Project Title   | Granting Body  | Total of<br>funds<br>awarded | Funds<br>used in<br>2019 | Years         |
|---|---|---|--|------------------------------|--------------------------|---------------|
| <b>Yates, P.,</b> Mitchell, G.,<br>Currow, D., Eagar, K.,<br>Edwards, H., Gardner, G.,<br>Willmott, L., Bonner, A.,<br>Clark, R., Tieman, J   | Centre for Palliative<br>Care Research and<br>Education | Centre for Research Excellence<br>in End of Life Care   | National Health<br>and Medical<br>Research Council   | \$2,495,543                  | \$0.00                   | 2013-<br>2019 |
| Hoy, W., Healy, H., Connelly.<br>L., Mitchell, G., Panaretto, K.,<br>Endre, Z., Coombes, J., Gobe,<br>G., Bonner, A., Fassett,<br>R., White, B., <b>Douglas, C.,</b><br>Nelson, C., Leon, D., Waugh,<br>D., Kulkarni, H., Tan, KS.,<br>Brown, M., Jose, M., <b>Yates, P</b> | Centre for Palliative<br>Care Research and<br>Education | Chronic Kidney Disease Centre<br>for Research Excellence  | NHMRC CRE in<br>Health Services                      | \$2,496,981                  | \$23,454                 | 2014-<br>2019 |
| Yates, P., Carter, R  | Centre for Palliative<br>Care Research and<br>Education | TrueNTH Solutions: an<br>integrated multi-component<br>intervention to improve the<br>lives of men with prostate<br>cancer in Australia   | The Movember<br>Group–True NTH                       | \$1,365,755                  | \$41,818                 | 2014-<br>2019 |
| <b>Yates, P.,</b> Alexander, K.,<br>Miaskowski, C., Chan, R.,<br>McCarthy, A., McPhail, S.,<br>Wyld, D., Skerman, H   | Centre for Palliative<br>Care Research and<br>Education | A sequential multiple<br>assignment randomized<br>trial (SMART) of nursing<br>interventions to reduce pain<br>associated with chemotherapy<br>induced peripheral neuropathy   | National Health<br>and Medical<br>Research Council   | \$713,418                    | \$209,990                | 2017-<br>2021 |
| <b>Hardy, J., Yates, P.,</b><br>Miakowski, C., Good, P.,<br>Skerman, S  | Centre for Palliative<br>Care Research and<br>Education | Assessing the influence of<br>genetic variation on symptom<br>clusters in men with castrate<br>resistant prostate cancer  | Mater Medical<br>Research Institute<br>Seeding Grant | \$20,000                     | In kind                  | 2015-<br>2020 |
| Hardy, J., Good, P., Olsen, R   | Centre for Palliative<br>Care Research and<br>Education | Talking about death: A<br>study into palliative care<br>communication   | Mater Medical<br>Research Institute<br>Seeding Grant | \$19,320                     | In kind                  | 2016-<br>2020 |
| Good, P., Sullivan, K.,<br>Woodward, N, <b>Hardy, J</b>   | Centre for Palliative<br>Care Research and<br>Education | An open label pilot study of<br>oral water-soluble contrast<br>(Gastrografin) in addition to<br>conservative management for<br>the resolution of malignant<br>bowel obstruction in adult<br>patients                    | Mater Medical<br>Research Institute<br>Seeding Grant | \$20,000                     | In kind                  | 2015-<br>2020 |
| <b>Hardy, J.,</b> Olsen, R., Good, P  | Centre for Palliative<br>Care Research and<br>Education | A qualitative study of cancer<br>patients' perceptions and<br>attitudes toward use of<br>medicinal cannabinoids in<br>palliative care.  | Mater Medical<br>Research Institute<br>Seeding Grant | \$19,496                     | \$7,496                  | 2017-<br>2020 |
| Good, P., <b>Hardy, J</b>   | Centre for Palliative<br>Care Research and<br>Education | Assessing physical activity<br>as an outcome of pain<br>management in patients with<br>advanced cancer  | Mater Medical<br>Research Institute<br>Seeding Grant | \$20,000                     | In kind                  | 2017-<br>2020 |
| Cross, J., Good, P., <b>Hardy, J.,</b><br>Martin, J., Galettis, P., Zeng, L   | Centre for Palliative<br>Care Research and<br>Education | Exploring potential anti-<br>inflammatory effects of<br>medicinal cannabis  | Mater Medical<br>Research Institute<br>Seeding Grant | \$20,000                     | \$5,000                  | 2018-<br>2020 |
| Richard, E., Mitchell, G.,<br>Nikles, J., Good, P., Senior,<br>H., Steadman, K., <b>Hardy, J</b>  | Centre for Palliative<br>Care Research and<br>Education | Oral pilocarpine tablets for xerostomia   | Mater Medical<br>Research Institute<br>Seeding Grant | \$19,947                     | \$9,947                  | 2018-<br>2020 |
| Good, P., <b>Hardy, J.,</b> Philip, J.,<br>Weil, J., Crawford, G., McNeil,<br>R., Yates, P  | Centre for Palliative<br>Care Research and<br>Education | A randomised, controlled,<br>double blind study of<br>ondansetron versus olanzapine<br>versus haloperidol in patients<br>with cancer and nausea not<br>related to anticancer therapy.<br>A pilot study (Nausea 4 study) | University of<br>Technology Sydney                   | \$19,947                     | \$9,947                  | 2018-<br>2020 |
| Hardy, J  | Centre for Palliative<br>Care Research and<br>Education | Research into prostate cancer   | Mater Medical<br>Research, Bill<br>Siganto Award     | \$10,000                     | In kind                  | 2018-<br>2020 |

#### Research Grants (cont)

| <b>Investigators</b><br>(RBWH staff in bold)   | RBWH Research<br>Groups /<br>Departments                | Project Title   | Granting Body  | Total of<br>funds<br>awarded | Funds<br>used in<br>2019 | Years         |
|--|---|---|--|------------------------------|--------------------------|---------------|
| <b>Hardy, J.,</b> Kindl, K.,<br>Tapuni, A., Kingi, N.,<br>Good, P., Prasad, S  | Centre for Palliative<br>Care Research and<br>Education | The prevalence of QTc<br>prolongation in patients<br>with cancer  | Mater Palliative<br>Care Research<br>Fund            | Student<br>Project           | In kind                  | 2014-<br>2019 |
| Good, P., <b>Hardy, J.,</b> Sullivan,<br>K., Syrmis, W., Woodward, N   | Centre for Palliative<br>Care Research and<br>Education | An open label pilot study of<br>oral water soluable contrast<br>(Gastrografin) in addition<br>to conservative medical<br>management for the resolution<br>of malignant bowel obstruction<br>in adult patients | Mater Medical<br>Research Institute<br>Seeding Grant | \$19,230                     | \$5,000                  | 2015-<br>2020 |
| <b>Hardy, J.,</b> Pinkerton, E.,<br>Russell, E., Kindl, K., Good, P  | Centre for Palliative<br>Care Research and<br>Education | Quality use of medicine: The<br>use of oral corticosteroids in<br>patients with advanced cancer   | Mater Palliative<br>Care Research<br>Fund            | Student<br>Project           | In kind                  | 2016-<br>2019 |
| Chan, R., <b>Yates, P.,</b> Emery,<br>J., Koczwara, B., Mann,<br>G., Eakin, E., Turner, M.,<br>Krishnasamy, M.,<br>Gordon, L. & Skerman, H | Centre for Palliative<br>Care Research and<br>Education | Implementation of a nurse-<br>enabled, shared-care follow-up<br>model for early Breast cancer<br>survivorS (The IBIS-Survivorship<br>Study). (APP1170519)   | NHMRC<br>Partnership Project                         | \$1,444,032                  | \$68,980                 | 2019-<br>2024 |

### **2019 Research Publications**

#### **Journal Articles**

- 1. Ekberg, S., Danby, S., Rendle-Short, J., Herbert, A., Bradford, N. & **Yates, P.** Discussing death: making end of life implicit or explicit in paediatric palliative care consultations. Patient Education and Counseling, (2019), 102(2), 198-206
- 2. Button, E., Gavin, N., Chan, R., Connell, S., Butler, J. & **Yates**, **P**. Harnessing the power of clinician judgement. Identifying risk of deteriorating and dying in people with a haematological malignancy: A Delphi study. Journal of Advanced Nursing, (2019), 75(1), 161-174
- Button, E., Gavin, N., Chan, R., Chambers, S., Butler, J. & Yates, P. Clinical indicators that identify risk of deteriorating and dying in people with a hematological malignancy: a case-control study with multivariable analysis. Journal of Palliative Medicine, (2019), 21(12), 1729-1740
- 4. Tindle, D., Windsor, C. & **Yates, P.** Centralizing temporality in adolescent and young adult cancer survivorship. Qualitative Health Research, (2019), 29(2), 173-183
- 5. Chan, R., Gordon, L., Tan, C., Chan, A., Bradford, N., **Yates, P.**, Agbejule, O. & Miaskowski, C. Relationships between financial toxicity and symptom burden in cancer survivors: A systematic review. Journal of Pain and Symptom Management, (2019), 57(3), 646-660
- Hudson, A.P., Spooner, A.J., Booth, N., Penny, R.A., Gordon, L.G., Downer, T.-R., Yates, P., Henderson, R., Bradford, N., Conway, A., 'Donnell, C., Geary, A. & Chan, R. Qualitative insights of patients and carers under the care of nurse navigators. Collegian, (2019), 26(1), 110-117
- Spooner, A., Booth, N., Downer, T.-R., Gordon, L., Hudson, A., Bradford, N., O'Donnell, C., Geary, A., Henderson, R., Franks, C., Conway, A., Yates, P. & Chan, R. Advanced practice profiles and work activities of nurse navigators: An early-stage evaluation. Collegian, (2019), 26(1), 103-109
- 8. Gordon, L.G., Spooner, A.J., Booth, N., Downer, T.-R., Hudson, A., **Yates, P.,** Geary, A., O'Donnell, C. & Chan, R. Do nurse navigators bring about fewer patient hospitalisations? Journal of Health Organization and Management, (2019), 33(1), 51-62
- 9. Northfield, S., Button, E., Wyld, D., Gavin, N., Nasato, G. & **Yates**, **P.** Taking care of our own: A narrative review of cancer care services-led models of care providing emergent care to patients with cancer. European Journal of Oncology Nursing, (2019), 40, 85-97
- 10. Shahid, S., Ekberg, S., Holloway, M., Jacka, C., **Yates, P.,** Garvey, G. & Thompson, S. Experiential learning to increase palliative care competence among the Indigenous workforce: an Australian experience. BMJ Supportive & Palliative Care, (2019), 9, 158-163
- Beatty, L., Kemp, E., Coll, J., Turner, J., Butow, P., Milne, D., Yates, P., Lambert, S., Wootten, A., Yip, D. & Koczwara, B. Finding My Way: results of a multicentre RCT evaluating a web-based self-guided psychosocial intervention for newly diagnosed cancer survivors. Supportive Care in Cancer, (2019), 27, 2533-2544
- 12. Mitchell, G., Willmott, L., White, P., Piper, D., Currow, D. & Yates, P. A perfect storm: fear of litigation for end of life care. Medical Journal of Australia, (2019), 210(10), 441.e1
- 13. Bradford, N., Chambers, S., Hudson, A., Jauncey-Cooke, J., Penny, R., Windsor, C. & **Yates**, **P**. Evaluation frameworks in health services: An integrative review of use, attributes and elements. Journal of Clinical Nursing, (2019), 28(13-14), 2486-2498
- 14. Conway, A., Donnell, C. & **Yates**, **P**. The effectiveness of the nurse care coordinator role on patient-reported and health service outcomes: A systematic review. Evaluation and the Health Professions, (2019), 42(3), 263-296
- Hardy, J., Skerman, H., Good, P., Philip, J., Currow, D., Mitchell, G., Yates, P. A randomized, double-blind controlled trial of methotrimeprazine versus haloperidol in palliative care patients with cancer-related nausea. BMJ Open, (2019);9: e029942. DOI:10.1136/bmjopen-2019-029942

#### Journal Articles (cont)

- 16. Ni, X., Chan, R., **Yates, P.,** Hu, W., Huang, X. & Lou, Y. The effects of Tai Chi on quality of life of cancer survivors: a systematic review and meta-analysis. Supportive Care in Cancer, (2019), 27(10), 3701-3716
- 17. Chan, R., Blades, R., Jones, L., Downer, T.-R., Peet, S., button, E., Wyld, D., McPhail, S., Doolan, M. & **Yates**, P. A single-blind, randomised controlled trial of StrataXRT\_ A silicone based film-forming gel dressing for prophylaxis and management of radiation dermatitis in patients with head and neck cancer. Radiotherapy and Oncology, (2019), 139, 72-79
- Xing, W., So, W.K.W., Choi, K.C., Wong, C.L., Tong, M., Choy, Y., Molassiotis, A., Yates, P. & Chan, R.J. Translation and psychometric testing of Cancer Survivors' Unmet Needs (Chinese Version). Asia Pacific Journal of Clinical Oncology, (2019), 15(5), e142-e146
- Turner, J., Yates, P., Kenny, L., Gordon, L., Burmeister, B., Hughes, B., McCarthy, A., Perry, C., Chan, R., Paviour, A., Skerman, H., Batstone, M. & Mackenzie, L. The ENHANCES study: a randomized controlled trial of a nurse-led survivorship intervention for patients treated for head and neck cancer. Supportive Care in Cancer, (2019), 27(12), 4627-4637
- 20. Poudel, A., Berry, R., McCarthy, A., Walpole, E., **Yates, P.** & Nissen, L. Medication use in older, terminally ill cancer patients: Are all medications appropriate? A longitudinal audit. Palliative Medicine, (2019), 33(9), 1232-123
- 21. Huang, Y.-L., Yates, P., Thorberg, F.A. & Wu, C.-J.J. Adults' perspectives on cultural, social and professional support on end-of-life preferences. Collegian, (2019), 26(6), 621-628
- 22. Good, P., Haywood, A., Gogna, G., Martin, J., **Yates P.**, Greer, R., **Hardy**, J. 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 cannabidiol (CBD). BMC Palliative Care, (2019), 18(110). DOI:10.1186/s12904-019-0494-6
- McCaffrey, N., Flint, T., Kaambwa, B., Fazekas, B., Rowett, D., Currow, D., Hardy, J., Agar, M., Quinn, S., & Eckermann, S. Economic evaluation of the randomised double-blind, placebo-controlled study of subcutaneous ketamine in the management of chronic cancer pain. Palliative Medicine, (2019); 33(1), 74-81
- Haywood, A., Duc, J., Good, P., Khan, S., Rickett, K., Vayne-Bossert, P., Hardy, J. Systemic corticosteroids for the management of cancer-related breathlessness (dyspnoea) in adults. Cochrane Database of Systematic Reviews, (2019), Issue 2. Art. No.: CD012704. DOI: 10.1002/14651858.CD012704.pub
- 25. King, M., Agar, M., Currow, D., **Hardy, J.**, Fazekas, B., McCaffrey, 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-Pal-14, FACT-G7)". Supportive Care in Cancer, (2019), Apr 16. DOI: 10.1007/s00520-019-04754-9. [Epub ahead of print]
- 26. Alqabandi, N., Haywood, A., Kindl, K., Khan, S., Good, P., **Hardy, J.** Managing diabetes at the end of life a retrospective chart audit of two health providers in Queensland, Australia. Progress in Palliative Care, (2019), 27(2), 51-57, DOI: 10.1080/09699260.2019.1611721
- 27. Delaforce, A., Moore, D., Duff, J., Munday, J., **Hardy, J.** Assessing transfusion practice in elective surgical patients: a baseline audit. ISBT Science Series, (2019); 0:1-8 Available from: https://onlinelibrary-wiley-com.ezp01.library.qut.edu.au/DOI/full/10.1111/voxs.12496
- Pinkerton, E., Good, P., Kindl, K., Richard, R., Fischer, A., Hardy, J. Quality use of medicines: oral corticosteroids in advanced cancer. Palliative Medicine, (2019), Research letter 2019: 33(10),1325-1326. Aug 5:269216319866647. DOI: 10.1177/0269216319866647
- Good, P., Greer, R., Huggett, G., Hardy, J. An open-label pilot study testing the feasibility of assessing total symptom burden in trials of cannabinoid medications in palliative care. Journal of Palliative Medicine, (2019), Dec 3. DOI: 10.1089/jpm.2019.0540. [Epub ahead of print] PMID:31800354
- 30. 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].

#### **Book Chapters / Letters**

- Matsuoka, H., Agar, M., Vandersman, Z., Good, P., Brown, L., Hardy, J., Weil, J., Currow, D. Harms from haloperidol for symptom management in palliative care; a post hoc pooled analysis of three randomised controlled studies and two consecutive cohort studies. Journal of Pain and Symptom Management 2019. May 20. pii: S0885-3924(19)30244-1. DOI: 10.1016/j.jpainsymman.2019.05.004. [Epub ahead of print]. 2019;58(3); e6-e8. (Research Letter)
- Yates, P. Cancer. In Brown, D., Edwards, H., Buckley, T. & Aitken, R. (Eds.) Lewis's Medical-Surgical Nursing: Assessment and Management of Clinical Problems (5<sup>th</sup> Ed.), (2019). Elsevier Australia, Sydney, pp. 274-312.

### 2019 Conference Presentations – Invited Speaker, Oral and Poster

#### **Invited Speakers**

- 1. Yates, P. Achieving quality palliative care for all. Canberra Health Annual Research Meeting (CHARM 2019), Canberra, Australia, 31<sup>st</sup> July 2019
- 2. Yates, P. National Palliative Care Projects: Palliative Care Education and Training Collaborative (PCC4U and PEPA). Oceanic Palliative Care Conference, Perth, Australia, 11<sup>th</sup> September 2019
- 3. Yates, P. National Palliative Care Projects: National Specialist Palliative Care and Advance Care Planning Advisory Services ELDAC. Oceanic Palliative Care Conference, Perth, Australia, 11<sup>th</sup> September 2019
- 4. Yates, P. Building nursing's capacity in cancer control: the important leadership role of the International Society of Nurses in Cancer Care. 12<sup>th</sup> International Conference on Cancer Care, Maputo, Mozambique, South Africa, 8<sup>th</sup> November 2019
- 5. Yates, P. Prostate cancer: latest advances in treatment for early prostate cancer. 2019 COSA Annual Scientific Meeting, Adelaide, Australia, 12<sup>th</sup> November 2019
- 6. Yates, P. Palliative care outcomes are effective: but hospital symptoms are superior. PCOC Outcomes & Benchmarking Conference, Sydney, Australia, 20<sup>th</sup> November 2019

#### Invited Speakers (cont)

- 7. Yates, P. Improving patient experiences of cancer care. Brisbane Cancer Conference, Brisbane, Australia, 29th November 2019
- 8. Hardy, J. Top 10 tips for medicinal cannabis. General Medicine Update Symposium, Centre for Palliative Care Research and Education, Royal Brisbane and Women's Hospital, Brisbane, Australia, 29<sup>th</sup> March 2019
- 9. Hardy, J. Advance care planning in the era of high risk anaesthesia. PA Anaesthesia Conference, Translational Research Institute, Princess Alexandra Hospital, Brisbane, Australia, 12<sup>th</sup> October 2019
- 10. Hardy, J. Cancer pain management, what works and what doesn't? Faculty Pain Medicine Annual Conference, The Byron Resort, Byron Bay, Australia, 18<sup>th</sup> October 2019
- 11. Hardy, J. Medicinal cannabis what is the role in palliative care? Faculty Pain Medicine Annual Conference, The Byron Resort, Byron Bay, Australia, 18<sup>th</sup> October 2019.

#### **Oral Presentations**

- 1. Yates, P. Transforming end-of-life care for older Australians: building workforce capacity through ELDAC. 15<sup>th</sup> National Rural Health Conference, Hobart, Tasmania, 26<sup>th</sup> March 2019
- 2. Yates, P. Lessons from the field: global nursing leadership in cancer control. International Council of Nurses (ICN) Congress 2019, Singapore, Singapore, 28<sup>th</sup> June 2019
- 3. **Yates, P.** Developing the evidence base to strengthen nursing services: The benefits of academic-health service-policy partnerships. ACN National Nursing Forum, Hobart, Tasmania, 23<sup>rd</sup> August 2019
- Bradford, N., Chan, R, & Yates, P. The veil of cancer symptoms in children: symptoms we know about are not the same as the ones that cause distress. MASCC/ISOO Annual Meeting, San Francisco, USA, 21<sup>st</sup> June 2019
- Gavin, N., Button, E., Smith, M., Hayes, T., Leutenegger, J., Glynn, T., Percival, V., Wong, L., Wessling, C. & Yates, P. Developing a nursing research internship. Cancer Nurses Society of Australia 22<sup>nd</sup> Annual Congress, Melbourne, Australia, 21<sup>st</sup> June 2019
- 6. Ogle, T., Alexander, K., Yates, P. & Miaskowski, C. A systematic review of the effectiveness of self-initiated interventions to decrease pain and sensory disturbances associated with peripheral neuropathy. TCNSA 22<sup>nd</sup> Annual Congress, Melbourne, Australia, 21<sup>st</sup> June 2019
- Chan, R., Blades, R., Jones, L., Downer, T.-R., Peet, S., Button, E., Wyld, D., McPhail, S., Doolan, M. & Yates, P. A single-blind, randomised controlled trial of StrataXRT<sup>®</sup> – a silicone-based film-forming gel dressing for prophylaxis and management of radiation dermatitis in patient with head and neck cancer. CNSA 22<sup>nd</sup> Annual Congress, Melbourne, Australia, 22<sup>nd</sup> June 2019
- 8. Bradford, N., Cashion, C., Chan, R., Walker, R., Herbert, A. & **Yates, P.** Integrating patient reported outcomes with digital solutions to empower children and families to self-manage complex health conditions. 2<sup>nd</sup> Asia Pacific Conference on Integrated Care, Melbourne, Australia, 11<sup>th</sup> November 2019
- Delaforce, A., Duff, J., Munday, J., & Hardy, J. Assessing transfusion practice in elective surgical patients: a baseline audit. ACORN Australian College of Perioperative Nurses Conference 2019, Townsville, Australia, 2<sup>nd</sup>-4<sup>th</sup> May 2019
- McCaffrey, N., Agar, M., Currow, D., Hardy, J., Fazekas, B., King, M. "Assessing Quality of Life in People Receiving Palliative Care: Empirical Comparison of Four Questionnaires (EORTC QLQ-C15-PAL, FACT-G7, FACIT-Pal, FACIT-Pal-14). 16<sup>th</sup> World Congress of the European Association for Palliative Care, Berlin, Germany, 23<sup>rd</sup>-25<sup>th</sup> May 2019
- 11. Delaforce, A., Munday, J., Duff, J., Hardy, J., Moore, D. Assessing transfusion practice in elective surgical patients: a baseline audit to identify opportunities for improvement. Blood 2019: combined Annual Scientific Meeting of the Haematology Society of Australia & New Zealand, Australian & New Zealand Society of Blood Transfusion and Thrombosis and Haemostasis Society of Australia & New Zealand, Perth, Australia, 20<sup>th</sup>-23<sup>rd</sup> October 2019
- 12. Delaforce, A., Duff, J., Munday, J. & **Hardy, J.**, Assessing transfusion practice in elective surgical patients: a baseline audit. Annual University of Newcastle Research Week, Newcastle, Australia, 12<sup>th</sup>-18<sup>th</sup> August 2019.

#### **Poster Presentations**

- 1. Bradford, N.K., Chan, R., Cashion, C., Walker, R. & **Yates, P**. RESPONSE: Adaption and validation of a Patient Reported Outcome Measure for Australian Children and Adolescents with Cancer. Cancer Survivorship Conference, Sydney, Australia, 28<sup>th</sup>-29<sup>th</sup> March 2019
- Chan, R., Blades, R., Jones, L. & Yates, P. A single-blind, randomized controlled trial of a silicone-based film-forming gel dressing for prophylaxis and management of radiation dermatitis in patient with head and neck cancer. Oncology Nursing Society's 44<sup>th</sup> Annual Congress, Anaheim, USA, 13<sup>th</sup> April 2019
- Blades, R., Chan, R., Yates, P. & McPhail, S. Cost-effectiveness of StrataXRT<sup>®</sup> versus Sorbolene for radiodermatitis in head and neck cancer patients: a trial-based economic evaluation. Cancer Nurses Society of Australia 22<sup>nd</sup> Annual Congress, Melbourne, Australia, 20<sup>th</sup>-22<sup>nd</sup> June 2019
- 4. Yates, P., Rusnac, N., Rosenberg, J., Clifton, K., Brodie, M., Gavin, J., Harrison, D. & Moore. R. Improving palliative care and advance care planning in aged care early findings of ELDAC working together audit data. Oceanic Palliative Care Conference, Perth, Australia, 10<sup>th</sup>-13<sup>th</sup> September 2019
- Gavin, N., Smith, M., Hayes, T., Leutenegger, J., Glynn, T., Williams, D., Pericval, V., Wong, L., Wessling, C., Watling, A., Roberts, N. & Yates, P. Developing a nursing research internship. Herston State of the Art Healthcare Symposium, Herston, Australia, 9th-12th September 2019
- Lah, M.C., Good, P., Huggett, G., Hardy, J. Medicinal Cannabinoids for Symptom Relief in Advanced Cancer Patients Feasibility Study. Australian Society for Breast Disease 12<sup>th</sup> Scientific Meeting, RACV Royal Pines Resort, Gold Coast, Australia, 10<sup>th</sup>-12<sup>th</sup> October 2019
- Delaforce, A., Munday, J., Duff, J., Hardy, J. Assessing transfusion practice in elective surgical patients: a baseline audit to identify opportunities for improvement. Blood 2019: combined Annual Scientific Meeting of the Haematology Society of Australia & New Zealand, Australian & New Zealand Society of Blood Transfusion and Thrombosis and Haemostasis Society of Australia & New Zealand, Perth Convention and Exhibition Centre, Perth, Australia, 20<sup>th</sup>-23<sup>rd</sup> October 2019.

#### Other communications and outputs:

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#### **Published Abstracts**

Ranse, K., Delaney, L., Ranse, J., Coyer, F. & Yates, P. End-of-life care in postgraduate critical care nurse curricula: An evaluation of current.

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McCaffrey, N., Agar, M., Currow, D., **Hardy, J.**, Fazekas, B., King, M. Assessing Quality of Life in People Receiving Palliative Care: Empirical Comparison of Four Questionnaires (EORTC QLQ-C15-PAL, FACT-G7, FACIT-Pal, FACIT-Pal-14). 16<sup>th</sup> World Congress of the European Association for Palliative Care, Berlin, Germany, 23<sup>rd</sup>-25<sup>th</sup> May 2019

Delaforce, A., Duff, J., Munday, J., & **Hardy, J.** Assessing transfusion practice in elective surgical patients: a baseline audit. ACORN – Australian College of Perioperative Nurses Conference 2019, Townsville, Australia, 2<sup>nd</sup>-4<sup>th</sup> May 2019

Delaforce, A., Munday, J., Duff, J., **Hardy, J.**, Moore, D. Assessing transfusion practice in elective surgical patients: a baseline audit. Blood 2019: combined Annual Scientific Meeting of the Haematology Society of Australia & New Zealand, Australian & New Zealand Society of Blood Transfusion and Thrombosis and Haemostasis Society of Australia & New Zealand, Perth, Australia, 20<sup>th</sup>-23<sup>rd</sup> October 2019

Delaforce, A., Duff, J., Munday, J. & **Hardy, J.**, Assessing transfusion practice in elective surgical patients: a baseline audit. Accepted for oral presentation at the annual University of Newcastle Research Week, Newcastle, Australia, 12<sup>th</sup>-18<sup>th</sup> August 2019.

#### Workshops / Other Presentations

Yates, P. Designing a research project. Emergency Medicine Foundation Research 101 Workshop, Brisbane, Australia, 12th March 2019

Yates, P. ELDAC: Improving palliative care and advance care planning for older Australians. Pre-Conference Workshop, Oceanic Palliative Care Conference, Perth, Australia, 10<sup>th</sup> September 2019

Yates, P. Creating real improvements for people affected by cancer: The essential role of nursing research. Nursing Research Forum, Memorial Sloan Kettering Cancer Center, New York, USA, 15<sup>th</sup> April 2019

Yates, P. Panel member. World Health Assembly Side Event, Beyond the headlines – what will it take to address the growing cancer burden? Geneva, Switzerland, 21<sup>st</sup> May 2019

Yates, P. Navigating the journey from diagnosis to after treatment. 59th PAH Health Symposium, Princess Alexandra Hospital, Brisbane, Australia, 1st August 2019

Yates, P. Dying Well – PCWA Public Forum, Perth, Australia, 9th September 2019

Yates, P. Achieving personalised health care: The role of nurses. The 1<sup>st</sup> Nanjing Medical University/QUT Nursing Research Symposium, Nanjing, China, 19<sup>th</sup> October 2019

Yates, P. The Future of Cancer Care Coordination – What does the evidence say? Cancer Care Coordinator Development Day, Mater Health Services, Brisbane, Australia, 25<sup>th</sup> October 2019

Yates, P. Building systems that respond to what matters most for older Australians at end of life. Joint luncheon of the Parliamentary Friends of Palliative Care and the Parliamentary Friends of Dementia, Canberra, Australia, 28th November 2019

Hardy, J. Nausea RCTs – what are the results and what have we learnt from them? UTS Concept Development Workshop, Jim Douglas Boardroom, St Vincent's Private Hospital, Brisbane, Australia, 1<sup>st</sup> March 2019

Hardy, J. Top 10 tips for medicinal cannabis – what have we learnt to date? Palliative Care Interest Group Dinner, Victoria Park Function Centre, Herston, Australia, 16<sup>th</sup> April 2019

Hardy, J. Medicinal cannabis – top 10 tips or what we have learnt so far. Mater Multi-disciplinary Education Session, Mater Adult Hospital, Brisbane, Australia, May 2019

Hardy, J. Opioid update. GP Education Evening, St Vincent's Private Hospital, Brisbane, Australia, 30th July 2019.

#### **Non-Refereed Publications**

White, B., Willmott, L., **Yates, P.,** Then, S.-N., Neller, P. & Feeney, R. End of Life Law for Clinicians: new national training. MJA InSight, 4<sup>th</sup> February 2019. (Editorial)

Button, E., Bolton, M., Chan, R., Chambers, S., Butler, J. & **Yates, P.** Editorial. A palliative care model and conceptual approach suited to clinical malignant haematology. Palliative Medicine, (2019), 33(5), 483-485.

# HERSTON**IMAGING** RESEARCH**FACILITY**

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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.

## Highlights of our research from 2019 include:

This year 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 over 2020.

## During 2019 we had 67 research projects, among them were:

<u>Abbvie</u>: A Randomized, Double-Blind, Placebo-Controlled Multiple Dose Study to Assess Efficacy, Safety, Tolerability, and Pharmacokinetics of ABBV-8E12 in Progressive Supranuclear Palsy.

ATA188-MS-101: An Open-Label Phase 1 Study to Evaluate the Safety of ATA188 in Subjects with Progressive and Relapsing-Remitting Multiple Sclerosis.

BeClear Speech Dsyarthria: An intensive speech treatment for adults with non-progressive dysarthria.

<u>Beigene 304</u>: 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.

**BIOFAB:** Skin Burns and Trauma Program – Medical imaging of the external ear towards 3D models for ear reconstruction.

<u>CEST</u>: A multi-centre trial investigating imaging technologies as measures of knee and hip cartilage composition in patients.

<u>CF-LUNG</u>: MRI for automated paediatric cystic fibrosis treatment response assessment.

<u>Chronic Pain</u>: The Central Neurobiological and Immunological Effects of Exercise in Individuals with Chronic.

Neck Pain Consult II: Predicting Surgery-induced Neurological Deficits using CONSULT tractography software.

CXCR4-Pancreatic Cancer: A study to look at a new way of detecting the spread of pancreas cancer.

CXCR4-Rectal Cancer: A pilot study of CXCR-4 PET scanning in operable rectal cancer.

**DBS Impulsivity:** Impulsivity and caregiver burden after deep brain stimulation for Parkinson's disease.

**Defocus**: Exploring the retinal response to defocus using fMRI – The brain's response to blurred images.

<u>Echo – Acerta Pharma</u>: A phase 3, randomised, double-blind, placebo-controlled, multicentre study of Bendamustine and Rituximab alone versus in combination with Acalabrutinib (ACP-196) in subjects with previously untreated mantle cell lymphoma.

**ENVPWI**: A language study of healthy participants into environmental sounds in picture-word interference.

FunDemental: Functional MRI in Delirium Pilot Study.

<u>Ga-68-DOTATATE</u>: Pilot project to compare Ga-68-DOTATATE clinical PET-CT with dynamic liver PET, 'diagnostic MRI' and simultaneous PET-MRI to assess well differentiated neuroendocrine tumour (NET) with liver metastases.

<u>Ga-68-PMSA Colorectal Cancer</u>: Evaluation of the use of Positron Emission Tomography using gallium-labelled [<sup>68</sup>Ga] PSMA ligand in the detection of Metastatic Colorectal Cancer – A Pilot Study.

GE-180 PET in GVHD: Pilot study of <sup>18</sup>FGE180PET to assess acute gastrointestinal graft versus host disease.

HABIT-ILE: A randomized trial of hand arm bimanual intensive training including lower extremity training for children with bilateral cerebral palsy.

KB004: A Phase I safety and biomaging trial of KB004 in patients with glioblastoma (ONJ2017-002).

LYRA: Sanofi Phase II trial of LYR-210 in Adult subjects with chronic sinusitis.

<u>Malaria</u>: *Functional nuclear medicine imaging in subpatent malaria*: *a pilot study Memory or Neurobiological markers for dementia*: Neurobiology-informed diagnostic toolkit for Neurodegenerative Disease.

<u>MicroResonance</u>: *Early Psychosis*: Neuroinflammation and Neurodegeneration from prodrome to FEP using multi-modal MRI.

<u>MINERAL</u>: Magnetic Resonance Imaging and Quantitative Susceptibility Mapping (MRI-QSM) of brain iron to identify Chemotherapy-Associated Neurocognitive Impairment (CANI) in Acute Myeloid Leukaemia (AML).

<u>Multiple Myeloma</u>: Pilot study of <sup>68</sup>Ga-Pentixafor positron emission tomography (PET) imaging in multiple myeloma.

<u>OCD</u>: Effects of focal non-invasive brain stimulation on network dynamics and symptoms of Obsessive-Compulsive Disorder.

Paediatric A-T: The assessment of the respiratory aspects of ataxia-telangiectasia.

**PD-MCI:** Markers and mechanisms of mild cognitive impairment (MCI) in Parkinson's disease (PD).

Perineural Spread: Utility of High-Resolution MRI in Evaluating Perineural Spread in Head and Neck Cancers.

**PERSPECTIVE LCZ696/Entresto:** 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.

**PETAL**: Improving the precision of clinical staging of the axilla.

PISA: Prospective Imaging Study of Ageing: Genes, Brain and Behaviour.

<u>PLIMATH</u>: Amulti-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.

<u>PREBO-6</u>: Prediction of childhood Brain Outcomes in infants born preterm using neonatal MRI and concurrent clinical biomarkers.

**Predict CP:** Implementation of comprehensive surveillance to Predict outcomes for children with Cerebral Palsy.

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## Supervised Post-Graduate Research Students

| Name<br>(RBWH staff<br>in bold) | Current Studies<br>(e.g. PhD, Masters etc.)<br>University (duration) | Research Project Title  | Supervisors<br>(RBWH staff in bold)   |
|---------------------------------|--|---|---|
| Jessica Bugeja                  | PhD, UQ<br>(2018-2021)   | Imaging Technologies to Measure Cartilage<br>Structure and Composition CEST   | Shekhar Chandra (UQ), Jurgen Fripp (CSIRO),<br>Craig Engstrom (UQ)                                |
| Tahleesa Cuda                   | PhD, UQ  | <sup>68</sup> Ga-PMSA Colorectal Cancer   | Andrew Stevenson, David Clark, Paul Thomas,<br>Andrew Riddell, John Hooper, Simon Puttick (CSIRO) |
| Bjorn Burgher                   | PhD Student  | Early Psychosis: neuroinflammation and<br>Neurodegeneration from prodrome to FEP<br>using multi-modal MRI               | Michael Breakspear (QIMR), James Scott  |
| Ji Hyun (Julia)<br>Yang         | PhD, UQ<br>(2015-2019)   | Markers and mechanisms of mild cognitive impairment (MCI) in Parkinson's disease (PD)                                   | <b>Nadeeka Dissanayaka,</b><br>Katie McMahon <i>(HIRF/QUT),</i> Gerard Byrne                      |
| Caitlin Hall                    | PhD UQ<br>(2018-2021)  | Effects of focal non-invasive brain stimulation<br>on network dynamics and symptoms of<br>Obsessive-Compulsive Disorder | Luca Cocchi ( <i>QIMR</i> ), <b>Graham Radford-Smith,</b><br>Anton Lord ( <i>QIMR</i> )           |
| Arash<br>Arabshahi              | PhD UQ<br>(2018-2021)  | Effects of focal non-invasive brain stimulation<br>on network dynamics and symptoms of<br>Obsessive-Compulsive Disorder | Luca Cocchi (QIMR), James Roberts (QIMR)  |
| Dr Ashleigh<br>Scott            | PhD, University<br>of QLD (2017-2021)                                | Pilot study of <sup>18F</sup> GE180PET to assess acute gastrointestinal graft versus host disease                       | Glen Kennedy, Siok-Keen Tey   |
| Dr Philip<br>Mosley             | PhD QIMR<br>Berghofer MRI  | Impulsivity and caregiver burden after deep brain stimulation for Parkinson's disease                                   | Prof Michael Breakspear (QIMR)  |
| Maureen Ross                    | PhD, QUT<br>(2018- <i>expected 2021</i> )                            | Medical imaging of the external ear towards<br>3D models for ear reconstruction   | Mia Woodruff (QUT), Mark Allenby (QUT),<br>Sean Powell (QUT), Edward Ren (QUT)                    |

## Current RBWH Research Group / Department Led Research Activity

| RBWH Research<br>Group / Department<br>Led Researchers<br>(RBWH staff in bold) | <b>Collaborative Researchers and Others</b><br>(RBWH staff in bold)   | Research<br>Project Title  |
|--|---|----------------------------|
| Dr Matthew Burge   | Paul Thomas, Melissa Eastgate, David Wyld, Nicholas O'Rourke, David Cavallucci,<br>Richard Bryant   | CXCR4-Pancreatic<br>Cancer |
| Dr Matthew Burge   | Paul Thomas, Melissa Eastgate, David Wyld, Andrew Stevenson, David Clark  | CXCR4-Rectal Cancer        |
| Dr Po-Ling Inglis  | Zernie Lwin (PCH), Paul Thomas  | KB004                      |
| Dr Jason Butler  | Dr Cameron Curley, Dr Simon Durrant, Dr Kirk Morris, Dr Elando Subramoniapillai, Tey,<br>Dr Nicholas Weber and Dr Glen Kennedy  | PLIMATH                    |
| Dr Kowsi Murugappan  | A/Prof Paul Thomas, Professor Owen Ung, Dr Ben Green, Cr Clement Wong, Professor<br>Liz Kenny; A/Prof Karin Steinke, Colleen Niland (UQ), Professor Sunil Lakhani (UQ)  | PETAL                      |
| Ryan Sommerville   | <b>Charles Lin, Jennifer Gillespie, Paul Thomas, Brett Hughes, Gishan Ratnayake, Jason</b><br><b>Papacostas , Touraj Taheri, Maria Sathi,</b> Markus Barth ( <i>UQ</i> ), Steffan Bollmann ( <i>UQ</i> ), Chris<br>Oosthuizen ( <i>Mater Hospital</i> ), Catherine Barnett ( <i>PAH</i> ), Ashvini Abeysekara ( <i>SCUH</i> ), Matthew<br>Fielder ( <i>SCUH</i> )   | Perineural Spread          |
| Dr Nadeeka<br>Dissanayaka  | Ms Ji Hyun (Julia) Yang (UQCCR), <b>Prof Gerard Byrne</b> ( <i>RBWH</i> ; UQCCR), <b>A/Prof David Copland</b><br>(UQCCR), <b>A/Prof John O'Sullivan</b> ( <i>RBWH</i> ; UQCCR), <b>A/Prof Katie McMahon</b> ( <i>QUT, HIRF</i> ), Prof<br>Nancy Pachana (UQCCR), Prof Peter Silburn (QBI), Prof George Mellick ( <i>Griffith University</i> ),<br>Ms Tiffany Au (UQCCR), Dana Pourzinal (UQCCR), Elana Forbes (UQCCR) | PD-MCI                     |
| Nick Weber   | Samuel Kyle, Paul Thomas, Glen Kennedy, Caitlin Thiru   | Multiple Myeloma           |
| Bjorn Burgher  | Nikitas Koussis <i>(QIMR),</i> Genevieve Whybird <i>(QIMR),</i> Michael Breakspear <i>(QIMR),</i> James Scott   | Microresonance             |
| Anders Cervin  |   | LYRA                       |
| Ashleigh Scott   | Glen Kennedy, Siok-Keen Tey, David Pattison, Paul Thomas  | GE-180 PET in GVHD         |
| Jason Butler   | Haem Staff – Dr's Curley, Durrant, Morris, Pillai, Tey, Weber and Kennedy   | Echo – Acerta Pharma       |

| RBWH Research<br>Group / Department<br>Led Researchers<br>(RBWH staff in bold) | <b>Collaborative Researchers and Others</b><br>( <i>RBWH staff in bold</i> )   | Research<br>Project Title |
|--|--|---------------------------|
| Ashleigh Scott   | Glen Kennedy, Katie McMahon (HIRF, QUT), Olivier Salvado (CSIRO), Ada Lo,<br>ZKate Thompson  | MINERAL                   |
| Nicholas Weber   | Haem Staff – Dr's Curley, Durrant, Morris, Pillai, Tey, Weber and Kennedy  | Beigene 304               |
| Manoj Bhatt  | David Pattison, David Wyld Matthew Burge, Rahul Ladwa (PAH), Peter Garcia,<br>Kevin Lee, Samuel Kyle, Jye Smith, Steven Rose (CSIRO) | Ga68-DOTATATE             |

## Current RBWH Research Group / Department Led Research Activity (cont)

## Collaborative Research Activity involving RBWH Research Group / Department

| Collaborative Led Researchers  | <b>RBWH Researchers and Others</b><br>( <i>RBWH staff in bold</i> )  | Research Project Title  |
|--|--|---|
| Kaye Petherick, Judith McLean, Lowanna Dunn,<br>Deborah Anderson, Cynthia Cliff, Marisha McAuliffe <i>(QUT)</i>  | Alison Alexander, Gillian Nasato,<br>Michael Smith, Ian Drake, Jodie Stewart,<br>Glen Kennedy  | Cancer Care Information<br>Portal for Cancer Patients in<br>Brisbane's Metro North Area |
| Stuart Crozier (UQ), Jurgen Fripp (CSIRO), Craig Engstrom (UQ),<br>Ales Neubert (CSIRO), Shekhar Chandra (UQ)  |  | Imaging Technologies to<br>Measure Cartilage Structure<br>and Composition CEST          |
| John Woodford <i>(QIMR</i> )   | <b>James McCarthy</b> ( <i>RBWH, QIMR</i> ),<br><b>Paul Thomas, Jennie Roberts,</b><br>Ashley Gillman ( <i>CSIRO</i> ), Stephen Rose ( <i>CSIRO</i> )  | Malaria   |
| Sarah Ward and Michael Breakspear (QIMR)   | Eamonn Eeles ( <i>RBWH, PCH</i> ), Robert Adam,<br>Kana Appadurai, Shanthi Kanagaraja,<br>Elizabeth Waldie, Madeleine Cameron,<br>Suzie Thistlethwaite | FunDemental   |
| Greig de Zubicaray ( <i>QUT</i> ), Sonia Brownsett ( <i>QUT</i> ),<br>Matteo Mascelloni ( <i>QUT</i> ),  | Katie McMahon (HIRF, QUT)  | ENVPWI  |
| Lee Reid (CSIRO), Jurgen Fripp (CSIRO)   | Marita Prior, Lindy Jeffree, Alan Coulthard  | CONSULT II  |
| Maureen Ross (QUT), Mia Woodruff (QUT), Sean Powell (QUT),<br>Mark Allenby (QUT), Andy Pandey (QUT), Davide Fontassa (QUT)   | Katie McMahon (HIRF/QUT), Clare Berry,<br>Maya Aghajanyan  | BIOFAB  |
| Deborah Theodoros (UQ), Brooke-Mai Whelan (UQ),<br>Elizabeth Cardell ( <i>Griffith</i> ), Emma Finch (UQ), Adam Vogel (Uni of<br><i>Melbourne</i> ), Stacie Park (ACU), Louise Cahill (UQ), David Copland<br>(UQ), Alan Coulthard (UQ), Megan McAuliffe (University of Canterbury) | Katie Mc Mahon (HIRF/QUT), Anna Farrell  | BeClear   |
| Professor Michael Pender (UQ)  | <b>Dr Zara Ioannides, Dr A Swayne,</b> Nanette<br>Douglas, Gem Mackenroth and <b>Kaye Hooper</b>   | ATA188-MS-101   |

## **Research Awards and Achievements**

| Recipient<br>(RBWH staff in bold)                               | Award  | Event   |
|---|--|---|
| Dr Joanne George  | Lions Dunning-Orlich NHMRC New Investigator<br>Award 2019                      | Highest ranked NHMRC New Investigator<br>Project grant in the Faculty of Medicine, UQ |
| <b>Bjorn Burger</b> and the Metro-North early psychosis service | Clinical Research Team Award   | Metro-North Research Excellence Awards 2019   |
| Dr Leanne Sakzewski   | UQ Foundation Research Excellence Award  | Research Week, The University of Queensland   |
| Dr Philip Mosley  | Australian Society for Medical Research<br>Postgraduate Medal 2018             | ASMR Awards   |
| Dr Philip Mosley  | American Society for Stereotactic and<br>Functional Neurosurgery Best Abstract | ASSFN Biennial Meeting, Denver, 2018  |
| Dr Philip Mosley  | Parkinson's QLD HDR Travel Award   | World Parkinson Congress, Kyoto, Japan, 2019  |

## **Research Grants**

| Research Grants  |   |  |  |                              |                          |               |
|--|---|--|--|------------------------------|--------------------------|---------------|
| <b>Investigators</b><br>(RBWH staff in bold)   | RBWH Research<br>Groups /<br>Departments  | Project Title  | Granting<br>Body   | Total of<br>funds<br>awarded | Funds<br>used in<br>2019 | Years         |
| Matthew Burge;<br>Vicki Whitehall  | Medical Oncology, cancer care services  | Molecular Subtyping of<br>KRAS Mutant Colon Cancers<br>to Inform Clinical Decision<br>Making   | Tour de Cure   | \$100,000.00                 | \$100,000.00             | 2019          |
| Janette Vardy,<br>Matthew Burge  | Medical Oncology,<br>cancer care services   | CHALLENGE: Colon Health<br>and Life Long Exercise<br>ChaNGE.   | NHMRC  | \$1.121million               | \$224,378.20             | 2019-<br>2023 |
| Matthew Burge  | Medical Oncology, cancer care services  | MONARCC study  | AMGEN  | \$650,000.00                 | \$216,666.67             | 2019-<br>2021 |
| Dr Joanne George,<br>Dr Alex Pagnozzi,<br>Dr Samudragupta Bora   | Queensland<br>Cerebral Palsy<br>and Rehabilitation<br>Research Centre,<br>CSIRO, Mater-UQ   | Prediction of childhood<br>Brain Outcomes in infants<br>born preterm using neonatal<br>MRI and concurrent clinical<br>biomarkers - PREBO-6   | NHMRC  | \$831,700.36                 | \$148,463.78             | 2019-<br>2023 |
| Riddell A  | RBWH Colorectal<br>Research Unit  | Targeted Radionuclide<br>Therapy for Metastatic Lower<br>Gastrointestinal Tumours  | Redcliffe<br>Private<br>Practice Fund  | \$10,000.00                  | \$10,000.00              | 2019          |
| Boyd R, Davies P,<br>Ziviani J, Trost S,<br>Barber L, Ware R, Rose S,<br>Whittingham K, Whitty J,<br>Bell K  | Queensland<br>Cerebral Palsy<br>and Rehabilitation<br>Research Centre<br>(UQ), Griffith, CSIRO,<br>Children's Health<br>Queensland                              | PREDICT outcomes to inform<br>services for children with<br>cerebral palsy   | NHMRC  | \$774,450.00                 | \$59,932.00              | 2014-<br>2020 |
| Ryan Sommerville,<br>Jennifer Gillespie  | Head and<br>Neck Cancer<br>Multidisciplinary<br>Team  | Utility of High-Resolution<br>MRI in Evaluating Perineural<br>Spread in Head and Neck<br>Cancers   | Royal Brisbane<br>and Women's<br>Hospital<br>Foundation<br>Diamond<br>Care Grant | \$31,200.00                  | \$31,200.00              | 2019          |
| Dr Leanne Sakzewski,<br>Prof Roslyn Boyd,<br>Prof Yannick Bleyenheuft,<br>Prof Iona Novak,<br>Prof Catherine Elliott,<br>Dr Catherine Morgan,<br>Dr Kerstin Pannek                             | Queensland<br>Cerebral Palsy<br>and Rehabilitation<br>Research Centre<br>(UQ), Université<br>catholique de<br>Louvain, USyd,<br>Curtin Uni, U<br>Aukland, CSIRO | HABIT-ILE: A randomised<br>trial of Hand Arm Bimanual<br>Intensive Training Including<br>Lower Extremity training<br>for children with bilateral<br>cerebral palsy   | NHMRC  | \$1,100,902.90               | \$299,707.00             | 2018-<br>2021 |
| Dr Philip Mosley   | QIMR Berghofer MRI  | Brain Networks Predicting<br>Impulsivity after Subthalamic<br>Deep Brain Stimulation for<br>Parkinson's Disease  | Advance<br>Queensland  | \$522,000.00                 | \$180,000.00             | 2016-<br>2019 |
| Rutger de Zoete,<br>Jeff Coombes,<br>Michele Sterling  | UQ  | The Central Neurobiological<br>Effects of Exercise in<br>Individuals with Chronic Pain   | UQ HABS  | \$32,000.00                  | \$32,000.00              | 2019          |
| Claire Wainwright; Dr David<br>Reid; Scott Bell, Emmanuelle<br>Fantino, Abdullah A Tarique;<br>Tony Kettle, Nina Dickerhof,<br>Jason Dowling, Andrew<br>Paproki, Tim Rosenow,<br>Andrew Butler | CSIRO, CHRC, TPCH,<br>QCH, CFFR, Telethon<br>Kids Institute   | Early life origins of CF lung<br>disease   | Cystic Fibrosis<br>Foundation  | \$2.3million                 | \$556,574.00             | 2019-<br>2021 |
| Manoj Bhatt  | Department of<br>Nuclear Medicine,<br>RBWH  | Pilot project to assess liver<br>metastases by comparing<br>noel, dynamic and static<br>functional imaging and<br>also morphological imaging<br>with standard of care in<br>HQO Grade I and Grade II<br>Neuroendocrine tumours (NET) | 2016 RBWH<br>HIRF Seed<br>Funding Grant  | \$38,500.00                  | \$24,700.00              | 2018-<br>2019 |

### **2019 Research Publications**

#### **Journal Articles**

- B Lee, L Lipton, J Cohen, J Tie, A A Javed, L Li, D Goldstein, M Burge, P Cooray, A Nagrial, N C Tebbutt, B Thomson, M Nikfarjam, M Harris, A Haydon, B Lawrence, D W M Tai, K Simons, A M Lennon, C L Wolfgang, C Tomasetti, N Papadopoulos, K W Kinzler, B Vogelstein, P Gibbs, Circulating tumor DNA as a potential marker of adjuvant chemotherapy benefit following surgery for localized pancreatic cancer, Annals of Oncology mdz200, https://doi.org/10.1093/annonc/mdz200
- 2. Christine Semira; Hui-Li Wong, **Matthew Burge** et al. Chemotherapy and biologic use in routine management of metastatic colorectal cancer: is clinical practice following the evidence? Internal Medicine Journal 49 (2019) 446-54
- 3. Tie J, Cohen JD, Wang Y, **M Burge** et al. Serial circulating tumour DNA analysis during multimodality treatment of locally advanced rectal cancer: a prospective biomarker study. Gut 2019; 68:663-671
- 4. Shehara Mendis, Sophie Beck, Belinda Lee, Margaret Lee, Rachel Wong, Suzanne Kosmider Jeremy Shapiro Desmond Yip, Simone Steel, Louise Nott Ross Jennens, Lara Lipton, **Matthew Burge**, Kathryn Field, Sumitra Ananda, Hui-Li Wong, Peter Gibbs. Right versus left sided metastatic colorectal cancer: Teasing out clinicopathologic drivers of disparity in survival. Asia-Pac J Clin Oncol. 2019;1-8
- 5. Matthew Burge, Timothy Price, Christos S. Karapetis. First Line Therapy for Metastatic Colorectal Cancer: Current Perspectives and Future Directions. Asia-Pac J Clin Oncol. 2019; 15:3-14
- 6. Christine Semira, Ben Tran, **Matthew Burge**, Lara Lipton, Peter Gibbs et al. Chemotherapy and biologic use in the routine management of metastatic colorectal cancer in Australia: is clinical practice following the evidence? Internal medicine Journal. 49(4): 446-454, 2019
- 7. Cuda T, Riddell A, Lyons N, Rose S, **Wyld D, Clark D, Stevenson A**, Hooper J, Puttick S, **Thomas P.** Quantifying 68Ga-PSMA-11 Uptake in Metastatic Colorectal Cancer: A Prospective PET Imaging Pilot Study (currently under review with Journal Nuclear Medicine)
- 8. LJ Hearne, DP Birney, L Cocchi, JB Mattingley. The Latin Square Task as a Measure of Relational Reasoning. European Journal of Psychological Assessment
- 9. A Kottaram, LA Johnston, L Cocchi, EP Ganella, I Everall, C Pantelis, ... Brain network dynamics in schizophrenia: Reduced dynamism of the default mode network. Human brain mapping 40 (7), 2212-2228
- 10. Cash RFH, Cocchi L, Anderson R, Rogachov A, Kucyi A, Barnett AJ, Zalesky A, Fitzgerald PB. A multivariate neuroimaging biomarker of individual outcome to transcranial magnetic stimulation in depression. Hum Brain Mapp. 2019 Jul 22. doi: 10.1002/hbm.24725
- Cash RFH, Zalesky A, Thomson RH, Tian Y, Cocchi L, Fitzgerald PB. Subgenual Functional Connectivity Predicts Antidepressant Treatment Response to Transcranial Magnetic Stimulation: Independent Validation and Evaluation of Personalization. Biol Psychiatry. 2019 Jul 15;86(2): e5-e7. doi: 10.1016/j.biopsych.2018.12.002
- 12. Di Biase MA, Cropley VL, Cocchi L, Fornito A, Calamante F, Ganella EP, Pantelis C, Zalesky A. Linking Cortical and Connectional Pathology in Schizophrenia. Schizophr Bull. 2019 Jun 18;45(4):911-923. doi: 10.1093/schbul/sby121
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- 23. Mosley, P.E., Smith, D., Coyne, T., Silburn, P., Breakspear, M. & Perry, A. (2018) The site of stimulation moderates neuropsychiatric symptoms after subthalamic deep brain stimulation for Parkinson's disease. NeuroImage: Clinical. 18: 996-1006
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- 25. Paliwal, S., Mosley, P.E.\*, Breakspear, M., Coyne, T., Silburn, P., Aponte, E. & Stephan, K. (2019) Subjective estimates of uncertainty and volatility during gambling predict impulsivity after subthalamic deep brain stimulation for Parkinson's disease. Scientific Reports. In press. \*Co-first author

#### Journal Articles (cont)

26. Mosley, P.E., Paliwal, S., Robinson, K., Coyne, T., Silburn, P., Tittgemeyer, M., Stephan, K., Breakspear, M. & Perry, A. (2019) The structural connectivity of discrete networks underlies impulsivity and gambling in Parkinson's. Brain. In press.

#### **Conference Publication** (reviewed)

- Tie J, Cohen J, Wang Y, Li L, Lee M, Wong R, Kosmider S, Wong H-L, Lee B, **Burge ME**, Tip D, Karapetis CS, Price TJ, Tebbut NC, Haydon AM, Tomasetti C, Papadopoulos N, Kinzler KW, Vogelstein B, Gibbs P. A pooled analysis of multicentre cohort studies of post-surgery circulated tumour DNS (ctDNA) in early stage coholrectal cancer. J Cinc Oncol, 2019 (suppl, abstr 3518)
- 2. Mendis SR, Lee B, Lee M, Wong R, Kosminder S, Shapiro JD, Yip D, Steel SA, Nott LM, Jennens R, Lipton LR, **Burge ME**, Field KM, Ananda S, Beck S, Wong H-L, Gibbs P. J Cinc Oncol, 2019 (suppl, abstr 623).

#### 2019 Conference Presentations – Invited Speaker, Oral and Poster

#### **Invited Speakers**

- 1. Paproki A., Dowling J, **Wainwright C**, Rose S, Invited speaker and panelist at the 2019 international cystic fibrosis workshop organized by Vertex Pharmaceuticals: "Innovative medical image informatics for improved clinical management of cystic fibrosis"
- 2. Dissanayaka N, fMRI Markers for Mild Cognitive Impairment in Parkinson's disease. Parkinson's Disease Neuroimaging Symposium, Las Vegas, USA July 2019
- 3. Dissanayaka N, Yang J, fMRI Markers for Mild Cognitive Impairment in Parkinson's disease. Department of Neurology Research Seminar Series, August 2019
- 4. Sakzewski L. Unmasking the black box of participation-focused therapy for children with cerebral palsy. European Academy of Childhood Disability, Paris, France, March 2019
- 5. Paproki A., Dowling J, Wainwright C, Rose S, invited speaker and panelist at the 2019 international cystic fibrosis workshop organized by Vertex Pharmaceuticals: "Innovative medical image informatics for improved clinical management of cystic fibrosis".

#### **Oral Presentations**

- Abeysekara A, Sommerville R, Lin C, Taheri T, Sommerville J. "Head and Neck Cancer with Perineural Spread: Pre-Operative MRI Compared with Histopathology Assessment of Zonal Classification". Australian and New Zealand Head and Neck Cancer Society (ANZHNCS), September 2019
- 2. Sakzewski L, Verhage C, Sicola E, Eliasson AC. Development of hand function during the first year of life in children with unilateral cerebral palsy. American Academy of Cerebral Palsy and Developmental Medicine, 9-13 October 2018, Cincinnati USA. Developmental Medicine & Child Neurology 2018, 60(S3):65-6
- 3. Mosley PE, Neurosurgery for psychiatric disorders: an update, RANZCP Congress, Cairns, Australia, 2019.

#### **Poster Presentations**

- 1. Wong H-L, Burge M et al, Understanding variation in treatment sequences and outcomes in metastatic colorectal cancer. AGITG ASM 2019
- 2. Kumari S, Burge M et al. Outcomes following resection of colorectal cancer liver metasteses in the older patient. AGITG ASM 2019
- 3. Wong H-L, **Burge M** et al, A pooled analysis of multicentre cohort studies of post-surgery circulating tumour DNA in early stage colorectal cancer. AGITG ASM 2019
- Collens S, Ahearn E, Kuchal A, Pritchard W, Whitehall V, Eastgate M, Wyld D, Burge M. Trends in RAS testing in metastatic colorectal cancer cases in a real-world cohort study. AGITG ASM 2019
- Chong C, Jalali A, Wong H, Loft M, Wrong R, Lee M, Gately L, Shapiro JD, Kosmider S, Tie J, Ananda S, Ma B, Burge M, Jennens R, Tran B, Lee B, Lim L, Dean A, Nott L, Gibbs P. Evolution of RAS mutation analysis in Australiasian patients with metastatic colorectal cancer. AGITG ASM 2019
- Cuda T, Riddell A, Lyons N, Rose S, Wyld D, Clark D, Stevenson A, Hooper J, Puttick S, Thomas P. Quantifying <sup>68</sup>Ga-PSMA-11 Uptake in Metastatic Colorectal Cancer: A Prospective PET Imaging Pilot Study. Australia and New Zealand Society of Nuclear Medicine, Annual Scientific Meeting
- 7. Abeysekara A, Fielder M, **Sommerville J, Thomas P, Lin C,** Al Najjar A, Barth M, **Sommerville R.** "Utility of Ultra High-Resolution MRI in Evaluating Perineural Spread in Head and Neck Cancers". The Australian Society of Otolaryngology Head and Neck Surgery (ASOHNS), March 2019
- 8. Yang JH, **McMahon KL**, Copland DA, Byrne GJ, Mitchell LK, O'Sullivan JD, Dissanayaka NNW. *Identifying altered resting-state network in Parkinson's disease with mild cognitive impairment*. 23<sup>rd</sup> Annual Meeting of the Organisation for Human Brain Mapping, June 2019
- 9. Mosley PE, Structural connectivity and impulsivity after deep brain stimulation for Parkinson's disease, World Parkinson Congress, Kyoto Japan, 2019
- 10. Paproki A. et al. "Paediatric lung imaging a new paradigm for cystic fibrosis management" AEHRC colloquium abstract.

### Other communications and outputs:

#### **PAEDIATRIC A-T**

The project (and MR images) has been presented at the bi-annual Ataxia-Telangiectasia clinic organized by Claire Wainwright (Queensland Children's Hospital). The images received positive from respiratory clinicans involved in AT research. The MRI protocol could be crucial in diagnosing lung disease in children with AT (manifested as anomalies similar to Cystic Fibrosis) given that these immunocompromised patients cannot get imaged using CT imaging. The results from the project have also been included in a report provided to the AT society.

HABIT-ILE: 10 News feature of HABIT-ILE (31/06/2019). https://www.facebook.com/watch/?v=1205603096268506.

ENVPWI: A DAAD grant application was submitted (outcome not yet known) which builds on the results of this study.



Back: Michael O'Sullivan (HIRF Director), Peta Gray (HIRF Operations Manager), Clare Berry (HIRF Radiographer), Katie McMahon (HIRF Deputy-Director), Kunal Oojorah (Radiographer)

Front: Hilarie Richards (HIRF Administration Officer), Tracey Burke (Radiographer)

# JAMIESON**TRAUMAINSTITUTE**



Professor Michael Schuetz Director Jamieson Trauma Institute The Jamieson Trauma Institute (JTI) is named after one of the country's most renowned and respected medical minds, Dr Kenneth Grant Jamieson. JTI's mission is to advance trauma care across Queensland and Australia through a collaboration of service and research partners and the integration of trauma services. While contributing to national and international evidence, the institute plays a key role in identification and implementation of solutions to the unique trauma issues facing Queensland.

JTI is supported by a joint funding venture between Metro North HHS and the Motor Accident Insurance Commission (MAIC) and is under the directorship of Professor Michael Schuetz. The institute is dedicated to increasing cliniciandriven research and being co-located with a research-active teaching hospital is key to enhancing interactions with clinician researchers and fostering strong collaborative research partnerships. As an internationally recognised trauma and burns hospital, with strong ties to the Australian Defence Force (ADF) and with extensive research and education capacity, RBWH is a perfect fit for JTI, and will be fundamental to furthering trauma research and improvement.

Contributing to JTI's systems capability are representatives and honorary positions from Queensland University of Technology, The University of Queensland (UQ), Monash University, Royal Australian College of Surgeons, ADF UQ Military Medicine and Metro South HHS. JTI also has ongoing

collaborations with Queensland Brain Institute (UQ), Herston Biofabrication Institute, the Herston Imaging Research Facility, rehabilitation services, research centres and our main funding partners, Metro North HHS (MNHHS) and MAIC.

In its second year, 2019 has seen the expansion of JTI capability with new staffing appointments and extensive collaborations resulting in a strategic research program aimed to deliver tangible outcomes. Priorities for JTI research are quality and data analytics, injury prevention, clinical trials, innovation, diagnostics, virtual and augmented reality, rehabilitation and outcome measurement, all with a focus on translation, education and training to improve patient care. This year, JTI established a new theme, Quality of Patient Care and Processes, with the goal of enhancing the efficiency of trauma management through research and innovation.

The Trauma Data Warehouse project, which aims to enable research to improve the care and outcomes of injured patients in Queensland, gained momentum this year thanks to JTI's key leadership roles. The data and analytics unit progressed research on linked trauma data, and presented analysis of trauma trends, costs and outcomes at several conferences and to key stakeholders. JTI researchers were involved in 27 collaborative clinical research projects, with 15 new initiatives in 2019 and four project completions. JTI has provided seed funding to 11 collaborative projects that will lay the groundwork for strong and ongoing collaborations with MNHHS, university and industry partners from 2020.

JTI is now delivering tangible clinical and policy benefits. The institute has established itself as the key contact for trauma-related Queensland Health Ministerial requests and briefings. It has also supported six federal government submissions using research and data to support safety regulatory initiatives related to quad bikes, personal mobility devices, such as e-scooters, and consumer products, and contributed to a literature review and consultation process to inform the National Injury Prevention Strategy development. Furthermore, research conducted at JTI has delivered a set of recommendations on pre-hospital retrieval processes for road trauma patients in Queensland.

JTI will continue to generate the evidence to support improvements in trauma care through engagement with our partners, stakeholders, end-users and patients.

# JAMIESONTRAUMAINSTITUTE (CONT)

## **JTI THEMES:**

- New: Quality of Care and Processes
- Data Quality and Analytics
- Diagnostics and Innovation
- Rehabilitation and Outcome Measurement
- Virtual Trauma Centre
- Clinical Trials
- Education and Training
- Injury Prevention.

## Research highlights:

The Jamieson Trauma Institute (JTI) brings together multiple university, health service and industry partners to advance trauma prevention, research, systems, and clinical management with the goal to deliver optimal care for people who suffer a traumatic injury. The team includes experts in data analytics, injury epidemiology, rehabilitation, biostatistics and health economics, to develop a research program spanning the whole continuum of trauma care.

In 2019, its second year of activity, JTI continued to build momentum through partnerships, increased service capability and strategic planning. This year JTI's research program delivered a total of 24 peer-reviewed journal articles and several conference presentations. JTI continued to support the Trauma Data Warehouse development project, whose purpose is to integrate data across the continuum of trauma care in Queensland to facilitate system-level audits and support state-wide trauma quality improvement, inform trauma and injury prevention policy, and enable research to improve the care and outcomes of injured patients in Queensland. JTI trauma data analytics team continued accumulating and analysing linked trauma data to enable investigation of trauma trends, patterns, burden, costs, and outcomes. The team has forged a strong collaborative relationship with the Queensland Health Statistical Services Branch through various research projects. The Statistical Services Branch now regularly engages JTI to respond to all trauma-related Queensland Health Ministerial Requests and Briefings. Furthermore, the JTI trauma data analytics team were involved in four federal government submissions utilising research and data to support regulatory initiatives to improve the safety of quad bikes, personal mobility devices and consumer products. They also contributed to a literature review and consultation process to inform the National Injury Prevention Strategy development, led by the George Institute.

JTI has made significant advances in the research of traumatic brain injury (TBI), with two new projects and funding obtained for a third project commencing in 2020. Progress has also been made towards the initiation of a multicentre research project aimed at predicting patient outcomes after TBI, with promising discussions across research institutions and four major Queensland hospitals. Participation in the federal government's new Mission TBI (National TBI Committee) is key for the alignment of JTI's TBI program to national priorities. International activities include a multinational research grant awarded by the prestigious AO Foundation (world leaders in musculoskeletal surgical innovation), which will aim to improve worldwide trauma care systems through guidelines and advocacy. The establishment of the new Quality of Patient Care and Processes theme articulates JTI's engagement with research end users and service consumers.

A priority of the JTI has been seeking external funding and funding partners, with a total of nine successful research grant applications totalling \$8.8 million for use from 2020, and a JTI position funded by Clinical Excellence Queensland. JTI has provided seed funding to eleven collaborative projects that will lay the groundwork for further collaborations with MNHHS, university and industry partners in years to come.

## Supervised Post-Graduate Research Students

| Adam Mahoney       | PhD, UQ (2018-current)       |   |  |
|--------------------|------------------------------|---|--|
|                    |                              | The spatial epidemiology of trauma in Queensland  | Michael Reade, Kirsten,<br>Vallmuur, Cate Cameron,<br>Kerrie Mengerson     |
| Martha Druery      | PhD, UQ (2014-current)       | Psychosocial outcomes post-major burn injuries in adults – a longitudinal exploratory study   | Jeff Lipman, Peter Newcombe,<br>Cate Cameron                               |
| Erin Pitt          | PhD, GU (2013-2019)          | Early childhood food consumption and dietary patterns: the influence of socio-economic and demographic factors and the food environment   | Tracy Comans, <b>Cate Cameron,</b><br>Lukar Thornton,<br>Danielle Gallegos |
| Catherine Niven    | PhD, QUT (2017-current)      | Evaluating consumer product safety regulator<br>responses to hazardous child products in Australia<br>and USA to inform health and safety policies and<br>improve the safety of Australian children | <b>Kirsten Vallmuur,</b><br>Ben Matthews                                   |
| Kim Vuong          | PhD, QUT (2015-2019)         | Quads and Kids: Understanding parents' knowledge, attitudes and beliefs about safety and risks  | Angela Watson, Ioni Lewis,<br><b>Kirsten Vallmuur</b>                      |
| Caroline Gillespie | PhD, QUT (2015-current)      | Influencing Safety in Supply Chains: Challenges and Opportunities for Businesses  | <b>Kirsten Vallmuur,</b> Narelle<br>Haworth, Darren Wishart                |
| Anthony Holley     | PhD, UQ (2018-current)       | Observational studies of critical care practice in the management of severe burns patients in Australia and New Zealand   | Michael Reade, Jeremy Cohen,<br>Jeff Lipman                                |
| Elissa Milford     | PhD, UQ (2014-2019)          | Effects on the glycocalyx of resuscitation with<br>immunomodulatory drugs and cryopreserved blood<br>products in preclinical and clinical trauma  | Michael Reade, John-Paul Tung  |
| Andrew Flint       | PhD, Monash (2017-current)   | Retrospective analysis of the effect of platelet transfusion on infection complications in critical illness   | <b>Michael Reade,</b> Zoe McQuilten,<br>Elizabeth Wood                     |
| Gabriela Simonova  | PhD, UQ (2016-2019)          | Effect of storage conditions and duration on the clinical effect of platelet and red blood cell transfusion   | <b>Michael Reade,</b> John-Paul<br>Tung, Melinda Dean                      |
| Phillipa Johnson   | M Psych, JCUS (2018-2019)    | Understanding the maternal mental health continuum  | Maria Hennessy   |
| Yi Ren Tan         | M Psych, JCUS (2018-2019)    | Understanding wellbeing in Singapore  | Maria Hennessy, Peter Chew   |
| Divyjot Kaur       | M Psych, JCUS (2018-current) | Comprehensive assessment of wellbeing in Australia  | Maria Hennessy   |
| Claire Moffatt     | PhD, JCUA (2016-2019)        | The development of a novel positive health framework to improve the understanding of recovery after chronic subdural haematoma  | <b>Maria Hennessy,</b><br>Nerina Caltabiano,<br>Laurence Marshman          |
| Paul Lee-Archer    | PhD, UQ (2019-current)       | A randomised controlled trial of dexmedetomidine to<br>lessen postoperative agitation in children undergoing<br>elective surgery or radiology   | Michael Reade  |

# **RBWH Research Staff with research roles, positions or appointments:** e.g. Coordinators, Fellow, Adjunct and Honorary appointments

| ) | <b>Name</b><br>(RBWH Staff in bold) | Type of Position   | FTE | Funding Source<br>(operational/<br>external/in-kind) | Research Program                          | Affiliated<br>University/ies |  |
|---|-------------------------------------|--|-----|--|---|------------------------------|--|
|   | Michael Schuetz                     | Director, Chair of Trauma  | 0.5 | External   | Innovations, Diagnostics and Translation  | QUT                          |  |
|   | Cate Cameron                        | Principal Research Fellow,<br>Adjunct Associate Professor                | 0.6 | Operational  | Injury Prevention and<br>Epidemiology     | QUT                          |  |
|   | Maria Hennessy                      | Principal Research Fellow,<br>Associate Professor in Clinical Psychology | 1.0 | Operational  | Rehabilitation and<br>Outcome Measurement | JCUS                         |  |
|   | David Douglas                       | Chair, Rehabilitation Medicine,<br>Adjunct Associate Professor           | 0.5 | Operational  | Rehabilitation and<br>Outcome Measurement | UQ                           |  |

| Rown Research Start with research roles, positions of appointments leg. coolumators, etc. (1011) |  |      |  |  |                              |
|--|--|------|--|--|------------------------------|
| <b>Name</b><br>(RBWH Staff in bold)  | Type of Position   | FTE  | Funding Source<br>(operational/<br>external/in-kind) | Research Program                         | Affiliated<br>University/ies |
| Victoria<br>McCreanor  | Senior Researcher (Health Economist)   | 0.9  | Operational  | Quality and Data Analytics               | QUT                          |
| Jacelle Warren   | Statistical Analyst  | 0.8  | Operational  | Quality and Data Analytics               |                              |
| Michael Reade  | Clinical Representative <i>(Australian Defence Force)</i> , Professor of Military Medicine | 0.1  | Operational  | Clinical Trials                          | UQ                           |
| Carl Lisec   | Clinical Representative <i>(Burns and Trauma)</i> , Senior Lecturer                        | 0.1  | Operational  | Burns and Trauma                         | UQ                           |
| Jason Brown  | Clinical Representative (Burns and Trauma)   | 0.1  | Operational  | Burns and Trauma                         |                              |
| Paul Thomas  | Clinical Representative <i>(Diagnostics),</i><br>Associate Professor                       | 0.25 | Operational  | Innovations, Diagnostics and Translation | UQ                           |
| Kevin Tetsworth  | Clinical Representative <i>(Orthopaedics)</i><br>Adjunct Associate Professor               | 0.1  | Operational  | Orthopaedic Trauma                       | UQ                           |
| Beat Schmutz   | Principal Research Fellow  | 0.5  | Operational  | Innovations, Diagnostics and Translation | QUT                          |
| Silvia Manzanero   | Research Coordinator   | 1.0  | Operational  | n.a.                                     | nil                          |

## **RBWH Research Staff with research roles, positions or appointments** e.g. Coordinators, etc (cont)

## Honorary Positions: e.g. Non-RBWH staff with research appointments at RBWH

| Name             | Position  | FTE       | Research Program   | Affiliated<br>University/ies |
|------------------|---|-----------|--|------------------------------|
| Cliff Pollard    | Honorary Clinical Representative,<br>Adjunct Associate Professor      | Part-Time | Virtual Trauma Centre (VTC): Augmented<br>Reality and Virtual Reality in Trauma Care | UQ                           |
| Kirsten Vallmuur | Honorary Principal Research Fellow, MAIC<br>Principal Research Fellow | 0.5       | Quality and Data Analytics   | QUT                          |
| Mark Midwinter   | Honorary Clinical Representative,<br>Professor of Clinical Anatomy    | Part-Time | Virtual Trauma Centre (VTC): Augmented<br>Reality and Virtual Reality in Trauma Care | UQ                           |

## Current RBWH Research Group / Department Led Research Activity

| RBWH Research<br>Group / Department<br>Led Researchers<br>(RBWH staff in bold) | <b>Collaborative Researchers and Others</b><br>( <i>RBWH staff in bold</i> )   | Research Project Title  |
|--|--|---|
| Maria Hennessy   | Dion Lo <i>(JCUS),</i> Monique Kirk <i>(JCU),</i><br>Laurence Marshman <i>(JCU, TTH)</i>   | Use of positive psychology interventions to improve mental health outcomes after mild to moderate TBI |
| Maria Hennessy   | Dion Lo <i>(JCUS),</i> Monique Kirk <i>(JCU),</i><br>Laurence Marshman <i>(JCU, TTH)</i>   | Evaluating the needs of people who have experienced TBI in regional areas                             |
| Maria Hennessy   | Karen Sullivan (QUT), Heidi Zeeman (Griffith), <b>Gary Mitchell</b><br>(ETC), <b>Craig Winter</b> (Neurosurgery), <b>Victoria McCreanor</b> (JTI),<br>Jacelle Warren (JTI) | Positive health outcomes after traumatic brain injury   |
| Maria Hennessy   | Karen Sullivan (QUT), Shaun Chandler (QUT)   | Evaluating the needs of people who have experienced TBI in regional areas                             |
| Maria Hennessy   | <b>Michael Schuetz</b> (JTI), Karen Sullivan (QUT),<br>Erwin Boettinger (HPI, Germany), Roberto Dillon (JCUS),<br>Jason McMillen (Neurosurgery)                            | Digital health markers to predict emergence from PTA  |
| Maria Hennessy   | Laurence Marshman <i>(JCU, TTH</i> ), Jessica McLellan <i>(JCU)</i> ,<br>Lorryn Delle Baite <i>(UQ</i> )   | Influence of opioids on PTA assessment  |
| Maria Hennessy   | Laurence Marshman (JCU. TTH), Lorryn Delle Baite (UQ)  | Novel cognitive and behavioural assessment of PTA   |
| Maria Hennessy   | Cate Cameron (JTI), Victoria McCreanor (JTI),<br>Jacelle Warren (JTI), Kirsten Vallmuur (JTI)  | Epidemiology of traumatic brain injury in<br>Queensland   |

## Current RBWH Research Group / Department Led Research Activity (cont)

|  |  | •   |
|--|--|---|
| RBWH Research<br>Group / Department<br>Led Researchers<br>(RBWH staff in bold) | <b>Collaborative Researchers and Others</b><br>( <i>RBWH staff in bold</i> )   | Research Project Title  |
|  |  | Personal mobility device injuries: observational study using data from Brisbane   |
| Cate Cameron   | Jacobus Ungerer ( <i>Pathology</i> ), <b>Kirsten Vallmuur</b> (JTI),<br>Jacelle Warren (JTI), <b>Victoria MCCreanor</b> (JTI), <b>Cliff Pollard</b> (JTI),<br><b>Michael Schuetz</b> (JTI), Tegwen Howell ( <i>Consultant</i> ),<br><b>Gary Mitchell</b> ( <i>ETC</i> )  | Alcohol and injury: Prevalence study at RBWH ED   |
| Cate Cameron   | Bill Loveday (MRQ), Kirsten Vallmuur (JTI), Victoria<br>McCreanor (JTI), Melanie Proper (MDPC), Jacelle Warren (JTI),<br>Cliff Pollard (JTI), Nick Graves (QUT)  | Prevalence and impact of opioid use pre- and post-trauma in Queensland: population-based data linkage study   |
| Cate Cameron   | Matthew Hope (PAH), Victoria McCreanor (JTI), Jacelle Warren<br>(JTI), Kirsten Vallmuur (JTI), Kevin Tetsworth (JTI), Cliff Pollard<br>(JTI)   | The burden and cost of pelvic and lower extremity orthopaedic injuries from land transport crashes in Queensland  |
| Cate Cameron   | Jacelle Warren (JTI), Michael Muller (Burns),<br>Michael Rudd (Trauma Service)   | Epidemiology of burns patients admitted to the state-wide Adults Burns Service in Queensland: A 10year review   |
| Kirsten Vallmuur   | Angela Watson <i>(QUT)</i> , Paul Taylor <i>(MAIC)</i> ,<br>Victoria McCreanor ( <i>ITI</i> ), Cate Cameron ( <i>ITI</i> ),<br>Jacelle Warren ( <i>ITI</i> )   | An examination of the quality of injury data and<br>patterns, trends and burden of injury for informing<br>establishment of a statewide trauma data<br>warehouse  |
| Kirsten Vallmuur   | Angela Watson ( <i>QUT</i> ), Chris Uber ( <i>UQ</i> ), Belinda Gabbe<br>( <i>Monash</i> ), James Harrison ( <i>Flinders</i> ), Son Ngheim ( <i>Griffith</i> ),<br><b>Cate Cameron</b> ( <i>JTI</i> ), <b>Jacelle Warren</b> ( <i>JTI</i> ), <b>Victoria McCreanor</b> ( <i>JTI</i> )  | Evaluation of ICD-10-AM based injury severity estimation models   |
| Kirsten Vallmuur   | Angela Watson ( <i>QUT</i> ), Paul Taylor ( <i>MAIC</i> ), Michael Clacher<br>( <i>QLD Treasury</i> ), Sebastian Bielen ( <i>OIR</i> ), Andrew Currie<br>(WorkCover), <b>Cate Cameron</b> ( <i>JTI</i> ), <b>Jacelle Warren</b> ( <i>JTI</i> ),<br><b>Victoria McCreanor</b> ( <i>JTI</i> )  | Feasibility, requirements, and value of data linkage<br>of motor vehicle accident compensation, workers<br>compensation and health data in Queensland   |
| Cate Cameron   | Maura Desmond (P.A.R.T.Y.), Michael Rudd (Trauma Service),<br>Cliff Pollard (JTI), Kerrianne Watt (JCU)  | A retrospective analysis of data collected from the<br>P.A.R.T.Y. (Prevent Alcohol and Risk-Related Trauma<br>in Youth) program 2010-2018   |
| Michael Reade  | Denese Marks ( <i>Red Cross</i> ), Laurence Weinberg ( <i>Austin Health</i> ),<br>David Irving ( <i>Red Cross</i> ), Zoe McQuilten ( <i>Monash</i> ),<br>Craig French ( <i>Uni Melb</i> ), Alistair Royse ( <i>RMH</i> ),<br>Paul Bannon ( <i>RPA</i> ), Lacey Johnson ( <i>Red Cross</i> ),<br>David Gattas ( <i>USyd</i> )                             | A phase III multicentre blinded randomised<br>controlled clinical trial of cryopreserved platelets<br>vs. conventional liquid-stored platelets for the<br>management of post-surgical bleeding (The<br>Cryopreserved vs. Liquid Platelets trial: CLIP-II) |
| Victoria McCreanor   | <b>Christopher Smith</b> ( <i>Physiotherapy</i> ), Greg Kneebone<br>( <i>oap</i> ), <b>Jerry van de Pol</b> ( <i>Orthopaedics</i> ), <b>Mark Cruickshank</b><br>( <i>Physiotheraphy</i> ), <b>Michael Schuetz, Peter Slattery</b><br>( <i>Rehabilitation Engineering</i> ), Stefan Geiselbrechtinger ( <i>OPED</i> ),<br>Venerina Johnston ( <i>UQ</i> ) | Streamlining aftercare for ankle fractures using digital innovation   |

## Collaborative Research Activity involving RBWH Research Group / Department

| Collaborative Led<br>Researchers                                | <b>RBWH Researchers and Others</b><br>( <i>RBWH staff in bold</i> )  | Research Project Title  |
|---|--|---|
| Robert Andrews<br><i>(QUT)</i>                                  | Moe Thandar Wynn ( <i>QUT</i> ), <b>Kirsten Vallmuur</b> ( <i>JTI</i> ), Arthur ter<br>Hofstede ( <i>QUT</i> ), Stephen Rashford ( <i>QAS</i> ), Emma Bosley ( <i>QAS</i> ),<br>Mark Elcock ( <i>RSQ</i> ) | Identifying pre-hospital retrieval processes for road trauma patients in Queensland   |
| Deborah Theodoros<br><i>(UQ),</i> Louise Cahill<br><i>(UQ</i> ) | Jacelle Warren (JTI), Cate Cameron (JTI), Kirsten Vallmuur (JTI)   | Distribution and type of inpatient allied health services<br>provided to patients following road traffic crashes<br>across Queensland |
| David Liu <i>(UQ</i> )  | Jason Pincus (ICU), Elizabeth Hallt (RBWH),<br>Michael Reade (JTI)   | Clonidine at Low dosage postoperatively to Nocturnally<br>Enhance Sleep (CLONES) phase II pilot trial                                 |
| Stephen Bernard<br><i>(Monash)</i>                              | <b>Michael Reade</b> (JTI), Biswadev Mitra (Monash), Russell Gruen<br>(ANU), Dashiel Gantner (Alfred), Brian Burns (USyd), Zsolt<br>Balogh (Uni Newcastle)   | Pre-hospital anti-fibrinolytics for traumatic coagulopathy and haemorrhage-2 (The PATCH2 Study)                                       |

## **Collaborative Research Activity** <u>involving RBWH Research Group / Department</u> (cont)

| Collaborative Led<br>Researchers      | RBWH Researchers and Others<br>(RBWH staff in bold)  | Research Project Title   |
|---------------------------------------|--|--|
| Gary Mitchell <i>(ETC)</i>            | <b>Cliff Pollard</b> ( <i>JTI</i> ), Fatima Nasrallah ( <i>UQ</i> ), Michael O'Sullivan<br>( <i>UQ</i> ), Jason Ross ( <i>CSIRO</i> ), <b>Louise Cullen</b> ( <i>ETC</i> ), <b>Jack Taylor</b><br>( <i>ETC</i> ), <b>Nathan Brown</b> ( <i>ETC</i> )   | The sensitivity and specificity of brain-origin circulating cell free DNA (ccfDNA) for the diagnosis of concussion and prediction of intracranial injuries |
| Peter Slattery<br>(Rehab Engineering) | David Douglas (/T/), Silvia Manzanero (/T/), Oliver Mason<br>(Rehab Engineering), Gunjeet Minhas (Pain Service), Sean<br>Powell (QUT), David Forrestal (QUT), Jacob Skewes (QUT), Mia<br>Woodruff (QUT), Carey Bayliss (MSHHS Spinal Outreach Team),<br>Lucy Maugham (MSHHS Spinal Outreach team), Shailendra<br>Maharaj (QCH), Kristen Morris (Medical Aids Subsidy Scheme) | Personalised 3D printed reactive cushions for pressure wound management  |
| Mathilde Desselle<br><i>(QUT</i> )    | Paul Gray (Pain Service), Elizabeth Vujcich (Burns),<br>Jason Brown (Burns)  | Virtual Reality for Burn/Trauma Care   |
| Ashish Wadhawan<br>(Orthopaedics)     | Michael Schuetz (JTI), Kevin Tetsworth (JTI), Beat Schmutz<br>(JTI), Pierrick Bourgeat (CSIRO), Jurgen Fripp (CSIRO)   | Development of an Artificial Intelligence screening<br>system to identify patients requiring a CT scan following<br>distal radius fractures                |

## **Research Awards and Achievements**

| <b>Recipient</b><br>(RBWH staff in bold) | Award   | Event  |
|--|---|--|
| Milford EM,<br>Reade MC (/7/)            | Felicity Hawker Prize for the best presentation by an Advanced Trainee of the College of Intensive Care Medicine of Australia and New Zealand for "Characterisation of the prolonged time course of syndecan-1 blood concentration as a marker of the endotheliopathy of trauma: a pilot cohort study." | College of Intensive Care<br>Medicine of Australia and<br>New Zealand Annual Scientific<br>Meeting, Cairns, 2019 |

### **Research Grants**

| <b>Investigators</b><br>(RBWH staff in bold)   | RBWH Research<br>Groups /<br>Departments | Project Title   | Granting Body   | Total of<br>funds<br>awarded | Funds<br>used in<br>2019 | Years         |
|--|--|---|---|------------------------------|--------------------------|---------------|
| <b>Cameron CM,</b> Loveday B,<br><b>Vallmuur K,</b> Graves N,<br>Proper M, <b>Warren J,</b> Bradford<br>N, Carter H, <b>Pollard C</b>  | JTI,<br>Multidisciplinary<br>Pain Centre | Opioid use in Queensland trauma<br>patients: population-based data<br>linkage study   | RBWH and RBWH<br>Foundation                           | \$36,809                     | \$36,809                 | 2019          |
| Mitchell R, Cameron CM   | JTI                                      | Impact of chronic health<br>conditions and injury on school<br>performance and health outcomes<br>of children: pilot study  | Philanthropic<br>Funds                                | \$77,639                     | \$77,639                 | 2019          |
| Patel B, Rudd M, <b>Pollard C</b>  | JTI, Trauma Service                      | Management of Splenic Injuries in<br>Queensland: Retrospective trend<br>analysis over 5 years and one-year<br>prospective evaluation of clinical<br>practice guideline implementation   | 2019 MAIC-<br>RCS Trauma<br>Scholarship               | \$66,000                     | \$66,000                 | 2019          |
| Hunter K, Keay L, Lukaszyk C,<br>Brown J, Clapham K, Curtis K,<br>Ivers R, Cullen P, <b>Vallmuur K,</b><br>Scott D, Mitchell R   | JTI                                      | National Injury Prevention Strategy<br>– Literature Review  | Australian<br>Government –<br>Department of<br>Health | \$131,756                    | \$131,756                | 2019          |
| <b>Brown J,</b> Zephanie Tyack,<br>Steven McPhail,<br>Michelle Donovan   | JTI, Burns                               | Feasibility, acceptability, costs and<br>preliminary effects of an innovative<br>ablative fractional CO2 laser service<br>for people with burns scars   | RBWH and RBWH<br>Foundation                           | \$39,944                     | \$39,944                 | 2019          |
| French C, Nichol A, Bellomo<br>R, Cooper DJ, Bailey M,<br>Higgins A, McArthur C,<br>Hodgson C, Gabbe B,<br>Duranteau J, Presneill J,<br>Rosenfeld J, Napolitano<br>L, Skrifvars M, <b>Reade MC,</b><br>Pettila V | ICU, JTI                                 | ErythroPOietin alfa to prevent<br>mortality and reduce severe<br>disability in critically ill TRAUMA<br>patients: a multicentre, stratified,<br>double blind, placebo randomised<br>controlled trial. (The EPO-TRAUMA<br>trial) | MRFF  | \$3.5 million                | \$700,000                | 2019-<br>2024 |

### Research Grants (cont)

| <b>Investigators</b><br>(RBWH staff in bold)  | RBWH Research<br>Groups /<br>Departments | Project Title  | Granting Body | Total of<br>funds<br>awarded | Funds<br>used in<br>2019 | Years         |
|---|--|--|---------------|------------------------------|--------------------------|---------------|
| <b>Reade MC,</b> Marks D,<br>Weinberg L, Irving D,<br>McQuilten Z, French C,<br>Royse A, Bannon P,<br>Johnson L, Gattas D | ICU, JTI                                 | A phase III multicentre blinded<br>randomised controlled clinical<br>trial of cryopreserved platelets<br>vs. conventional liquid-stored<br>platelets for the management<br>of post-surgical bleeding (The<br>Cryopreserved vs. Liquid Platelets<br>trial: CLIP-II) | NHMRC         | \$1.8 million                | \$450,000                | 2019-<br>2023 |
| Bernard S, Mitra B, Gruen R,<br>Gantner D, <b>Reade MC,</b><br>Burns B, Balogh Z  | ETC, ICU, JTI                            | Pre-hospital anti-fibrinolytics<br>for traumatic coagulopathy and<br>haemorrhage-2 (The PATCH2 Study)  | NHMRC         | \$656,000                    | \$328,000                | 2019-<br>2020 |

### 2019 Research Publications

#### **Journal Articles**

- 1. Andrews R, Wynn MT, **Vallmuur K**, Hofsteded AHM, Bosley E, Elcock M. Leveraging Data Quality to Better Prepare for Process Mining: An Approach Illustrated Through Analysing Road Trauma Pre-Hospital Retrieval and Transport Processes in Queensland. International Journal of Environmental Research and Public Health. 2019. https://doi.org/10.3390/ijerphxx010000
- 2. Butson B, Pearson A, & Reade MC. Project Wantok Haus Sik. Journal of Military and Veterans' Health. 2019;27(4):67-68
- 3. Curtis K, Gabbe B, Shaban RZ, Nahidi S, Pollard C, **Vallmuur K**, ... Christey G. Priorities for trauma quality improvement and registry use in Australia and New Zealand. Injury. 2019. https://doi:10.1016/j.injury.2019.09.033
- 4. Dhanani J, Roberts J, **Reade MC.** Nebulized tranexamic acid for hemoptysis associated with submassive pulmonary embolism. Journal of Aerosol Medicine and Pulmonary Drug Delivery. 2019. http://doi.org/10.1089/jamp.2019.1534
- 5. Frossard L, Jones MWM, Stewart I, Leggat PA, **Schuetz M**, Langton C. Kinetics of lower limb prosthesis: automated detection of vertical loading rate. Prosthesis. 2019;1(1)16-28
- 6. Holley AD, Reade MC, Lipman J, Delaney A, Udy A, Lee R, ... Cohen J. Survey of critical care practice in Australian and New Zealand burn referral centres. Critical Care and Resuscitation. 2019;21(4):303-304
- Irving A, Higgins A, Ady B, Bellomo R, Cooper D J, French C, ... McQuilten ZK (inc. Reade MC). Fresh Red Cells for Transfusion in Critically Ill Adults: An Economic Evaluation of the Standard Issue Transfusion Versus Fresher Red-Cell Use in Intensive Care (TRANSFUSE) Clinical Trial. Critical Care Medicine. 2019;47(7):e572-e579. https://doi:10.1097/ccm.000000000003781
- Karbysheva S, Butini ME, Di Luca M, Winkler T, Schuetz M, Trampuz A. Chemical biofilm dislodgement with chelating and reducing agents in comparison to sonication: implications for the diagnosis of implant associated infection. bioRxiv. 2019. https://doi.org/10.1101/604637
- Milford EM and Reade MC. Resuscitation fluid choices to preserve the endothelial glycocalyx. Critical Care. 2019. https://doi.org/10.1186/s13054-019-2369-x
- 10. Moffatt C, Hennessy MJ, Marshman LAG, Manickam A. Long-term health outcomes after chronic subdural haematoma. Journal of Clinical Neuroscience. 2019. https://doi.org/10.1016/j.jocn.2019.04.039
- 11. Niven CM, Mathews B, Harrison JE, & Vallmuur K. Hazardous children's products on the Australian and US market 2011-2017: an empirical analysis of child-related product safety recalls. Injury Prevention. 2019. https://doi:10.1136/injuryprev-2019-043267
- 12. Reade MC. Addressing high practice variability in reported management of burns. Critical Care and Resuscitation. 2019;21(4):233-235
- 13. Reade MC. Delirium: one size does not fit all. Internal Medicine Journal. 2019;49(12):1469-1471. https://doi:10.1111/imj.14656
- 14. Reade MC. How urgent is an urgent craniotomy in the deployed military context? A retrospective observational study. Journal of Military and Veterans' Health. 2019;27(4):48-49
- 15. **Reade MC.** Prehospital antibiotics a narrative review and rationale to change ADF practice. Journal of Military and Veterans' Health. 2019;27(4):66
- Reade MC, Marks DC, Bellomo R, Deans R, Faulke DJ, Fraser JF, Gattas DJ, Holley AD, Irving DO, Johnson L, Pearse BL, Royse AG, Wong J. A randomized, controlled pilot clinical trial of cryopreserved platelets for perioperative surgical bleeding: The CLIP-I trial. Transfusion. 2019. https://doi.org/10.1111/trf.15423
- 17. Russow G, Schuetz M, Berner A. Locking Plate Osteosynthesis. OP-Journal. 2019. https://doi.org/10.1055/a-0755-0171
- Shehabi Y, Howe BD, Bellomo R, Arabi YM, Bailey M, Bass FE, KadimanS, MacArthur C, Murray L, Reade MC, ... Webb SA. Early Sedation with Dexmedetomidine in Critically Ill Patients. The New Englan Journal of Medicine. 2019;380(26):2506-2517. https://doi:10.1056/NEJMoa1904710
- 19. Simonova G, Dean MM, **Reade MC** & Tung J-P. Characterization Of Immunomodulatory Mediators In Conventional And Cryopreserved Sheep Platelet Concentrates. ISBT Meeting, Basel. Vox Sanguinis. 2019;114(Suppl 1):226. https://doi.org/10.1111/vox.12792

#### Journal Articles (cont)

- Simonova G, Dean MM, Reade MC & Tung, JP (2019). Characterization of immunomodulatory mediators in sheep packed red blood cells: development of a robust transfusion model. ISBT Meeting, Basel. Vox Sanguinis. 2019;114(Suppl 1):226. https://doi.org/10.1111/vox.12792
- Simonova G, Dean MM, Reade MC & Tung J-P (2019). Towards understanding of post-transfusion immunomodulation: sheep immune responses to lipopolysaccharide. ISBT Meeting, Basel. Vox Sanguinis. 2019;114(Suppl 1):226. https://doi.org/10.1111/vox.12792
- 22. Simonova G, Temple F, Johnson L, Marks D, **Reade MC** & Tung J-P, The Storage Mode of Sheep Platelet Concentrates Differentially Affects Microparticle Formation. ISBT Meeting, Basel. Vox Sanguinis. 2019;114 (Suppl 1):111. https://doi.org/10.1111/vox.12792
- 23. Smits E, Brakenridge C, Gane E, **Warren J**, Heron-Delaney M, Kenardy J & Johnston V. Identifying risk of poor physical and mental health recovery following a road traffic crash: An industry-specific screening tool. Accident Analysis & Prevention. 2019;132:105280. https://doi:10.1016/j.aap.2019.105280
- 24. Zenzes M, Bortel EL, Fratzl P, Mundlos S, **Schuetz M**, Schmidt H, Duda GN, Witte F, Zaslansky P. Normal trabecular vertebral bone is formed via rapid transformation of mineralized spicules: A high-resolution 3D ex-vivo murine study. Acta Biomaterialia. 2019. https://doi.org/10.1016/j.actbio.2018.12.050.

#### 2019 Conference Presentations – Invited Speaker, Oral and Poster

#### **Invited Speakers**

- 1. Schuetz M. Working together: RACS QTC, STCN, JTI. RBWH Trauma Symposium, Brisbane, 22 February 2019
- 2. Reade M. How a military hospital prepares for a mass casualty event. ISICEM, Brussels, 19-22 March 2019
- 3. Reade M. Is clonidine just as good as dexmedetomidine? ISICEM, Brussels, 19-22 March 2019
- 4. Reade M. Prehospital antibiotic administration. ISICEM, Brussels, 19-22 March 2019
- 5. Reade M. How to get patients to sleep? ISICEM, Brussels, 19-22 March 2019
- 6. Reade M. Nerve agents: saving the patient and protecting the staff. ISICEM, Brussels, 19-22 March 2019
- 7. Reade M. How urgent is an urgent craniotomy? ISICEM, Brussels, 19-22 March 2019
- 8. Brown J. Biofabrication in Burns Treatment. 2019 Herston Biofabrication Institute Conference, Brisbane, 22 March 2019
- 9. Tetsworth K. Biofabrication in Orthopaedics. 2019 Herston Biofabrication Institute Conference, Brisbane, 22 March 2019
- 10. Midwinter M. Augmented Reality and Virtual Reality in Clinical Practice. 2019 Herston Biofabrication Institute Conference, Brisbane, 22 March 2019
- 11. Reade M. Defence Force transfusion innovations. ANZCA ASM, Kuala Lumpur, Malaysia, 1 May 2019
- 12. Lisec C. Trauma Update: Burns. QLD Autumn Symposium, Brisbane, 23 May 2019
- 13. Schuetz M. Improving the clinical outcome of peri-implant infections through multidisciplinary management and clinical guidelines. AOTP Scientific Congress, Taipei, Taiwan, 25 May 2019
- 14. Brown J. Laser for Burns Scar/Novosorb BTM. 6th National Burns Survivors Forum, Sunshine Coast, 30 May 2019
- 15. Reade M. Trials on the horizon. 2019 College of Intensive Care Medicine Annual Scientific Meeting, Cairns, 6-9 June 2019
- 16. Reade M. Blast. 2019 College of Intensive Care Medicine Annual Scientific Meeting, Cairns, 6-9 June 2019
- 17. Vallmuur K. Queensland Trauma Data Warehouse: Reading between the lines. 2019 College of Intensive Care Medicine Annual Scientific Meeting, Cairns, 6 9 June 2019
- 18. Schuetz M. Quality of Life, Pain and Mental Health Outcomes. IMPACT 2019, Brisbane. 10 Sep 2019
- 19. Reade MC. Military critical care. World Congress of Intensive Care, Melbourne. 14-18 Oct 2019
- 20. Pollard C, Best D, Faulkner B, Midwinter M, Phillips J, Poyser S, Santamauro C, Shuker M. Using Augmented Reality to improve Point-of-Care Support for Rural Generalists. Rural Medicine Australia 2019, Gold Coast. 26 Oct 2019
- 21. Vallmuur K. The value of linked health data for enhancing CTP scheme insights Early findings. Rehabilitation Industry Group Meeting, Brisbane. 2 Dec 2019.

#### **Oral Presentations**

- 1. **Brown J** & Black N. Initial Experience and Cost Implications with a Novel Biodegradable Temporising Membrane (BTM) in Major Burns over 40%. JAB Burns Symposium, Maui, 5 February 2019
- 2. **Brown J** & Black N. Self-Immolation: A 20 Year Experience of Severe Self-Inflicted Burns in a State-Wide, Tertiary, Australian Burns Service. JAB Burns Symposium, Maui, 5 February 2019
- Andrews R, Wynn M, ter Hofstede A, Vallmuur K, Bosley E, Rashford S, Elcock M. Getting There: Evidence-based Decision-making in Road Trauma Pre-hospital Transport and Care in Queensland. WADEM Congress on Disaster and Emergency Medicine, Brisbane, 7-10 May 2019
- 4. Santomauro C, McCurdie T, **Pollard C**, Shuker M. Exploring the Feasibility of Wearable Technologies to Provide Interactive Telepresence Sub-Specialist Support to Remote Clinicians Treating Patients with Traumatic Injuries. WADEM Congress on Disaster and Emergency Medicine, Brisbane, 7-10 May 2019

#### **Oral Presentations** (cont)

- 5. Schuetz M. International Trauma Services. WADEM Congress on Disaster and Emergency Medicine, Brisbane, 7-10 May 2019
- 6. Reade M. Does the Golden Hour Exist? WADEM Congress on Disaster and Emergency Medicine, Brisbane, 7-10 May 2019
- 7. Milford E, **Reade M.** Characterisation of the prolonged time course of syndecan-1 blood concentration as a marker of the endotheliopathy of trauma: a pilot cohort study. 2019 College of Intensive Care Medicine Annual Scientific Meeting, Cairns, 6-9 June 2019
- 8. Reade MC. Coagulopathy and fibrinolysis in trauma. Australian and New Zealand College of Veterinary Science Annual Scientific Conference, Gold Coast. 5 Jul 2019
- 9. Reade MC. Cryopreserved platelets in trauma. XXVII Congress of the International Society on Thrombosis and Haemostasis, Melbourne. 17 Jul 2019
- Reade MC. Innovations in ADF transfusion practice: frozen platelets, freeze-dried plasma and whole blood. Australian Institute of Medical Scientists (AIMS) and the New Zealand Institute of Medical Laboratory Science (NZIMLS) Annual Scientific Congress, Gold Coast. 17 Sep 2019
- 11. Patel B, **Pollard C**, Wall D, Bain R, Davies S, Mott N, Grieve J, Rashid M, Ericksen D, Wullschleger M, Rudd M. Outcomes of Splenic Injuries. Australasian Research Management Society, Adelaide. 17-20 Sep 2019
- 12. Reade MC. Sedation to avoid delirium possible? World Congress of Intensive Care, Melbourne. 14-18 Oct 2019
- 13. Smits E, Brakenridge C, Gane E, **Warren J**, Heron-Delaney M, Kenardy J, Johnston V. A tool to identify risk of non-return to work following a road traffic crash: a screening tool. Transform 2019: Physiotherapy Conference, Adelaide, 19 Oct 2019
- 14. Vallmuur K. Responsive surveillance for prevention policy: A case study of the lime scooter trial in Brisbane. 14<sup>th</sup> Australasian Injury Prevention and Safety Promotion Conference, Brisbane. 25 Nov 2019
- 15. Cameron C, Vallmuur K, Tippett V, Pollard C, Schuetz M. Queensland Injury Prevention Knowledge Hub (QIP-KHub). 14<sup>th</sup> Australasian Injury Prevention and Safety Promotion Conference, Brisbane. 25-27 Nov 2019
- 16. McCreanor V, Hope M, Cameron C, Warren J, Vallmuur K, Pollard C. The burden and cost of pelvic and lower limb orthopaedic injuries from land transport crashes in Queensland. 14<sup>th</sup> Australasian Injury Prevention and Safety Promotion Conference, Brisbane. 25-27 Nov 2019
- 17. McCreanor V, Warren J, Cameron C, Vallmuur K, Pollard C, Hope M. Burden and cost of pelvic and lower limb injuries from road traffic crashes, in Queensland. 11<sup>th</sup> Health Services and Policy Research Conference, Auckland, NZ. 4-6 Dec 2019
- Reade MC. Optimizing the management of pain, agitation/sedation and delirium throughout the ICU stay. Shaping Critical Care conference, Taipei, Taiwan. 2019
- 19. Flint A, McQuilten Z, Smith J, Bailey M, **Reade MC**. Predictive model for platelet transfusion in patients with acute haemorrhage. Military Health Services Research Symposium, Orlando, Florida, USA. 2019
- 20. Reade MC. Is the golden hour still relevant on the modern battlefield? United States Central Command Medical Co-operation and Exchange meeting, Tampa, Florida. 2019.

#### **Poster Presentations**

- Devlin M, Williamson F, Wall D, Daelman T, Rudd M, Lipp T, Hamilton A, Handy M, Ross J, Jackman K, Grant K, Pearce S, Smith R, Lewis J, Vohland J, Grant A, Zheng O, Ashurst C, Klan M, Hacking C, Cleland P, Warren J, Cameron C. Performing the tertiary survey: A comparison of medical officer and trauma nurse. Poster presented at RBWH Trauma Symposium, Brisbane, 22 February 2019
- 2. Sharpless M, Reade MC. How long is too long? Identifying the culprit drug in anaphylaxis by timing of exposure case report and literature review. ANZCA ASM, Kuala Lumpur, Malaysia, 1 May 2019
- 3. Lisec C & Sivasuthan G. Imaging in the diagnosis of thoracoabdominal penetrating injuries. RACS Scientific Meeting, Bangkok, 6-10 May 2019
- 4. Lisec C & Sivasuthan G. Epidemiology of penetrating thoracoabdominal trauma. RACS Scientific Meeting, Bangkok, 6-10 May 2019
- 5. **Hennessy M**, Stone K. Understanding the search for meaning in life: relationships with mental health, wellbeing and level of presence. 6<sup>th</sup> World Congress of Positive Psychology, Melbourne. 18-21 Jul 2019
- 6. Warren J, Theodoros D, Vallmuur K, Cameron C, Cahill L, Sterling M, Johnston V. Distribution and type of inpatient allied health services for people following road traffic crashes across Queensland where are the gaps? National Allied Health Conference, Brisbane. 5-8 Aug 2019
- McCreanor V, Cameron C, Warren J, Vallmuur K, Pollard C. The burden and cost of injury-related admissions in Queensland. Trauma 2019, Sydney. 4-6 Oct 2019
- 8. Reade MC. PATCH trial. College of Intensive Care Medicine of Australia and New Zealand Annual Scientific Meeting, Cairns. 2019
- 9. Reade MC. Challenges and opportunities in delivering deployable healthcare to the next war. NSW Defence Regional Health Advisory Group Annual Conference, Sydney. 2019
- 10. Reade MC, Bushby T, Davies K, Beresford-Jones P, Palling J, Evans N, Hasse K, Maher G. Prolonged Field Care. Combined Army Health Corps National Conference, Brisbane. 2019.

### Other communications and outputs:

#### **GOVERNMENT SUBMISSIONS**

Vallmuur K, Hope M, Beck B. Response to ACCC Quad bike safety standard exposure draft. July 2019. Response developed for the ACCC consultation.

Hunter K, Bestman A., Elkington J., Anderst A., Scott D, Cullen P, Mitchell R, Clapham K, Killian J, Curtis K, Beck B, **Vallmuur K,** Lukacszyk C, Ivers RQ, Keay L, Brown J. National Injury Prevention Strategy – Literature Review. July 2019. Report developed for the Australian Government Department of Health.

Niven C, **Vallmuur K**, Barker R, Warren-Wright K, Teerds S, Strachan D, Hope M, Beck B. Collaborative Response to the Consultation Regulatory Impact Statement (CRIS): Improving the Effectiveness of the Consumer Product Safety System. Nov 2019. Response developed for the Australian Competition and Consumer Commission consultation.

**Vallmuur K,** Hope M, Beck B. Response to NTC Collaborative Response to the Consultation Regulatory Impact Statement (CRIS): Barriers to the safe use of personal mobility devices. Dec 2019. Response developed for the National Transport Commission consultation.

#### **REPORTS**

Harrison JE, Watson A, Vallmuur K. A National Approach to Measuring Non-fatal Crash Outcomes. Austroads Research Report AP-R599-19. 2019. https://austroads.com.au/publications/road-safety/ap-r599-19.

#### PARLIAMENTARY BRIEFING NOTES

Six Parliamentary Briefing Notes (hot issues) prepared for Minister for Health for AIHW embargoed reports on:

- 1. Pedal cyclist deaths and hospitalisations, 1999-00 to 2015-16
- 2. Injury of Aboriginal and Torres Strait Islander people due to transport 2010-11 to 2014-15
- 3. Mobility scooter-related injuries and deaths
- 4. Hospitalised injury and socioeconomic influence in Australia 2015-16
- 5. Injury mortality and socioeconomic influence in Australia 2016-16
- 6. Trends in injury deaths Australia 1999-00 to 2016-17.



Left – Right Rachael Brown, Jacelle Warren, Sophie Trenery, Rosalind Wendt, Michael Schuetz, Silvia Manzanero, Cate Cameron, Nathan Valentine, Kirsten Vallmuur, Dihan Aponso, Shehera Banu, Beat Schmutz, Victoria McCreanor, Brett Droder, Lisa Whittaker.