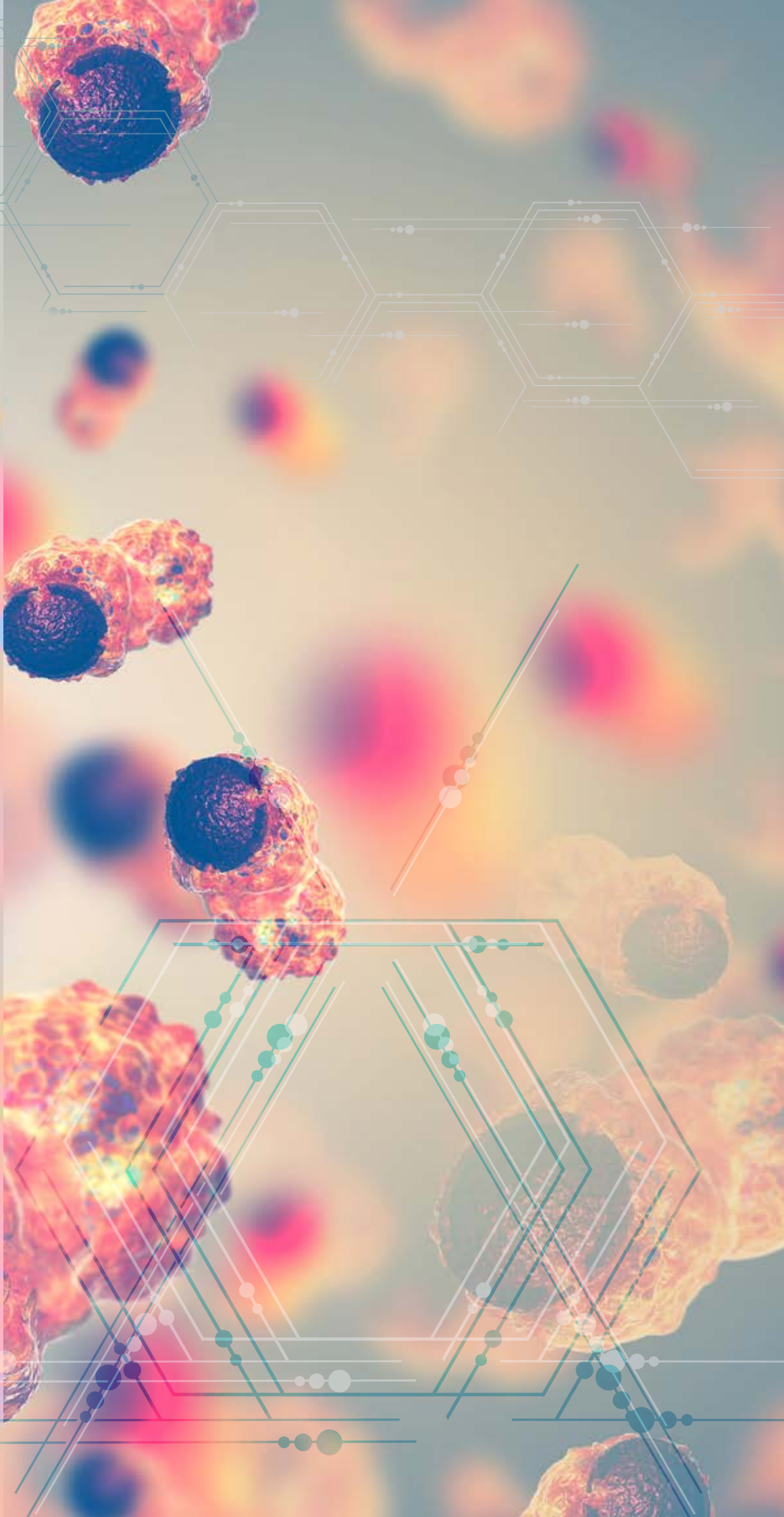


CANCER CARE SERVICES



CANCERCARE SERVICES



Dr Glen Kennedy
Executive Director
Cancer Care Services MNHHS

Cancer Care Services (CCS) at RBWH continues to provide expert highly skilled, evidence-based care to patients affected by cancer and non-malignant haematological conditions, including haemophilia. As a service committed to striving for excellence, our multidisciplinary research team is an integral part of ensuring the provision of cutting-edge treatment to our patients.

The Cancer Care research team includes the Allied Health Professions, Cancer Nursing Professorial Precinct, Medical Oncology, Radiation Oncology and Haematology including the Haemophilia Centre and Bone Marrow Transplant Unit. Research is considered core business within Cancer Care, and a vehicle to the facilitation of progressive treatment for our patients. 2019 represented another year of fantastic achievement in research for Cancer Care. The annual CCS Research Retreat brought together investigators from CCS and senior hospital and district executives to enable planning to ensure that research remains at the forefront of our service both now and into the future. Highlights in 2019 included establishment of infrastructure, funded by a Queensland Health New Technology Grant, to locally manufacture chimeric antigen receptor T-cells (CAR-T) for treatment of B-cell malignancies, as well as opening commercial CAR-T studies and other genetic treatment studies in Haemophilia. Our Research Advisory Group (RAG) also extended membership to include representatives from all MNHHS facilities, as part of our continuing programme to link cancer research across our district. Establishment of a research trial database has also significantly improved our ability to plan our clinical trial resources more effectively. Other research highlights for the year are detailed in our separate departmental reports. We look forward to 2020 to continue to strive to expand and embed research within CCS across all patient and disease groups, incorporating new and novel approaches to care within clinical, translational and basic science research programmes and partnerships, aiming to constantly improve clinical outcomes for our patients.

CLINICAL RESEARCH



Dr Steven Lane
Director of Clinical Research
 Clinical Haematologist
 Cancer Care Services RBWH

Research is ingrained in the DNA of the Division of Cancer Care Services. The last 12 months have seen the program move from strength to strength, with major national and international collaborations delivering strong research results that will impact the care of our patients.

We have had major highlights such as contributions to publications in the New England Journal of Medicine, Science and top specialist journals, the publication of national and international guidelines, a Eureka Prize and funding from the State Government to develop the first chimeric antigen receptor T cell (CAR-T) program in the state. Our program collaborates widely across the Herston campus, forming partnerships with QIMR Berghofer, University of Queensland, QUT, Griffith University and more broadly through vehicles such as the Brisbane Diamantina Health Partnership. These amazing results have been achieved in a challenging research environment, with major changes across the campus in reporting, ethics and governance and clinical trial management. As such, I would like to particularly acknowledge the amazing work of our clinical trials co-ordinators and research staff. Our department has made changes to work flow to ensure efficiency and readiness for the future, including the roll out of a prospective clinical trials database and tele-trials initiatives. Linking in with this, we have prepared a research strategy to link with the overarching Metro North Research Strategy. CCS clearly remains committed to the ongoing support and development in clinical research. This work is essential to the development of new therapies and ideas in treatment and support of patients suffering different cancer diagnoses. Congratulations and thanks to all involved in this important work and on behalf of the Cancer Research Department we look forward to an exciting time ahead for research.

Name	Role	Department	Organisation
Tracey Gilbert	Research Support Officer	Cancer Care Services	Queensland Health

HAEMATOLOGY & BONEMARROW TRANSPLANT



Dr Cameron Curley
Deputy Director
Clinical Haematology and BMT

The Department of Haematology and BMT is committed to healthcare innovation to improve patient outcomes through the provision of a high level comprehensive translational and clinical research program. A culture of research excellence continues to grow within the department supported by ongoing collaborations between research partners including: QIMR Berghofer, UQ, Herston Imaging Research Facility, the Australasian Leukaemia and Lymphoma group and other medical and allied health teams within RBWH and from other health districts. Pleasingly, 2019 was another successful year that has seen many positive achievements with regards to research opportunities and outcomes for our staff and patients.

Clinical trials continue to grow recruitment across a number of disease streams including myeloid malignancy, lymphoma, myeloma, thrombosis and haemostasis and cellular therapies including allogeneic BMT and chimeric antigen receptor T cell (CAR T) therapy.

Importantly over 2019 funding opportunities continued to grow. Major successful grants included:

- Queensland Genomics 2019-2020 – CAR T targeting CD19 (\$800k)
- RBWH Foundation Diamond Grant 2020 – Haem GP shared care (\$40k)
- NHMRC Grant 2019-2021 – (\$878k).

Over the course of 2019 there have been notable publications in impact journals, and presentations and posters at national and international conferences by departmental staff. Areas of note include novel insights into leukaemogenesis, aspects of pharmacokinetics of anti-infective therapies in febrile neutropenia, the immunology of allogeneic stem cell transplantation, nutrition and the microbiome post-transplant and unique approaches to the prevention of graft versus host disease.

The Department of Haem/BMT continues to encourage the pursuit of higher degrees amongst our team and pleasingly Dr Andrea Henden and Dr Victoria Ling both successfully completed their PhD's in 2019. We congratulate them on their achievement and are encouraged by the increasing numbers of fellow staff currently enrolled in higher degrees.

Supervised Post-Graduate Research Students

Name <i>(RBWH staff in bold)</i>	Current Studies <i>(e.g. PhD, Masters etc.)</i> University <i>(duration)</i>	Research Project Title	Supervisors <i>(RBWH staff in bold)</i>
Dr Ashleigh Scott	MPhil, UQ (2017-19)	Targeting translocator protein to improve diagnostic accuracy in gastrointestinal graft versus host disease	Glen Kennedy, Siok-Keen Tey
Dr Andrea Henden	PhD, UQ (2015-2019) <i>Conferred</i>	Anti-leukaemia effects of type I and type III Interferons	Prof Geoff Hill, Prof Steven Lane
Nienke Zomerdijk	PhD, UQ (2015-19)	The psychosocial impact of donating haematopoietic stem cells on adult related donors	Prof Jane Turner, Prof Geoff Hill
Victoria Ling	PhD, UQ	Chemotherapy resistance in leukaemia	Steven Lane
William Godfrey	Hons, UQ	Chemotherapy resistance in leukaemia	Steven Lane

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

Name <i>(RBWH Staff in bold)</i>	Type of Position	Research Program	Affiliated University/ies
Steven Lane	Treasurer	Haematology Society of Australia and New Zealand	
Steven Lane	Councillor	Haematology Society of Australia and New Zealand	
Steven Lane	Committee Member	Metro North Research Committee	
Steven Lane	Head of Cancer Program		QIMR Berghofer Medical Research Institute
Steven Lane	Head, Cancer Theme		Brisbane Diamantina Health Partners
Steven Lane	Committee Member	RBWH Research Committee	
Steven Lane	Research Coordinator	RBWH Haematology Research	
Steven Lane	Invited Member		Leukaemia Foundation Blood Cancer Expert Panel
Steven Lane	Scientific Review Panel Member		Snowdome/Leukemia and Lymphoma Society (USA) Scientific Review Panel
Steven Lane	Scientific Program Member		Maddie Riewoldt's Vision, Grants Committee
Siok Tey	Clinician Research Fellowship	MNHHS	UQ, Faculty of Medicine
Andrea Henden	Senior Lecturer		UQ, Faculty of Medicine
Nicholas Weber	Committee member		Australasian Myeloma Research Consortium
Robyn Western	Manager, Clinical Trials Unit	Clinical Trials Unit Haematology/Bone Marrow Transplant	
Carolyne Little	Clinical Trial Coordinator	Clinical Trials Unit Haematology/Bone Marrow Transplant	
Jessica Kelly	Clinical Trial Coordinator	Clinical Trials Unit Haematology/Bone Marrow Transplant	
Kate Stark	Clinical Trial Coordinator	Clinical Trials Unit Haematology/Bone Marrow Transplant	
Katie Matthews	Clinical Trial Coordinator	Clinical Trials Unit Haematology/Bone Marrow Transplant	
Tricia Pusztai	Clinical Trial Coordinator	Clinical Trials Unit Haematology/Bone Marrow Transplant	
Kiara Mason	Clinical Trial Coordinator	Clinical Trials Unit Haematology/Bone Marrow Transplant	
Madonna Fuery	Clinical Trial Coordinator	Clinical Trials Unit Haematology/Bone Marrow Transplant	
Michelle deBock	Clinical Trial Coordinator	Clinical Trials Unit Haematology/Bone Marrow Transplant	
Bridie Roff	Clinical Trial Coordinator	Clinical Trials Unit Haematology/Bone Marrow Transplant	
Keri Kerr	Clinical Trial Coordinator	Clinical Trials Unit Haematology/Bone Marrow Transplant	
Nicola Quirk	Senior Administration Officer	Clinical Trials Unit Haematology/Bone Marrow Transplant	
Sharon Milne	Senior Administration Officer	Clinical Trials Unit Haematology/Bone Marrow Transplant	
Nienke Zomerdijk	Research Coordinator	Clinical Trials Unit Haematology/Bone Marrow Transplant	

Current RBWH Research Group / Department Led Research Activity

RBWH Research Group/Department Led Researchers <i>(RBWH staff in bold)</i>	Collaborative Researchers and Others <i>(RBWH staff in bold)</i>	Research Project Title
Ashleigh Scott	Glen Kennedy, Siok Tey, Paul Thomas, David Pattison	Pilot study of ¹⁸ FGE-180-PET to assess acute gastrointestinal graft versus host disease
Ashleigh Scott	Leo Francis	Histological features and anti-TSPO immunohistochemistry (anti-TSPO IHC) in acute gastrointestinal graft versus host disease (GI-GVHD)
Ashleigh Scott	Glen Kennedy, Katie McMahon, Olivier Salvado, Kate Thompson, Ada Lo	Magnetic Resonance Imaging and Quantitative Susceptibility Mapping (MRI-QSM) of brain iron to identify Chemotherapy-Associated Neurocognitive Impairment (CANI) in Acute Myeloid Leukaemia (AML)
Siok Tey	Glen Kennedy, Cameron Curley, Jason Butler, Elango Subramonia-Pillai, Ashleigh Scott, Simon Durrant, James Morton	A Phase 2/3, Multicenter, randomized, Double-blind, placebo-controlled, study to evaluate the safety and efficacy of Alpha-1 Antitrypsin for the prevention of graft-versus-host disease in patients receiving hematopoietic cell transplant – CSL MODULAATE
Siok Tey	Jason Butler, Cameron Curley, Elango Subramonia-Pillai, Ashleigh Scott	PCYC 1140-IM ICON Integrate – Clinical trial of Ibrutinib in Combination With Corticosteroids versus Placebo in Combination With Corticosteroids in Subjects with New Onset Chronic Graft Versus Host Disease (cGVHD)
Siok Tey	Glen Kennedy, Simon Durrant, James Morton, Jason Butler, Elango Subramonia-Pillai, Cameron Curley, Ashish Misra	IL-17 – Observational study of IL-17-related cytokines in stem cell transplantation
Siok Tey	Glen Kennedy, Cheryl Hutchins	TREG Apheresis – Developing a method to generate regulatory T cells from healthy donors
Siok Tey	Glen Kennedy, Simon Durrant, James Morton, Jason Butler, Elango Subramonia-Pillai, Cameron Curley, Ashish Misra	IR Auto – Observational study of immune reconstitution in patients undergoing autologous stem cell transplantation
Siok Tey	Glen Kennedy, Simon Durrant, James Morton, Jason Butler, Elango Subramonia-Pillai, Cameron Curley, Ashish Misra	IR Allo – Observational study of immune reconstitution following stem cell transplantation
Jane Mason		A Prospective Non-Interventional Study of Bleeding Episodes, Factor VIII Infusions, and Patient-Reported Outcomes in Individuals with Severe Hemophilia A – BMN 270-902
Jane Mason	Nicholas Weber, Michelle Spanevello	A Phase 3 Open-Label, Single-Arm Study To Evaluate The Efficacy and Safety of BMN 270, an Adeno-Associated Virus Vector-Mediated Gene Transfer of Human Factor VIII in Hemophilia A Patients with Residual FVIII Levels = 1 IU/dL Receiving Prophylactic FVIII Infusions – BMN 270-301
Jason Butler		A phase III randomized open-label multi-center study of ruxolitinib vs. best available therapy in patients with corticosteroid-resistant acute graft vs. host disease after allogeneic stem cell transplantation – REACH 2
Jason Butler	Cameron Curley, Simon Durrant, Kirk Morris, Elango Subramonia Pillai, Siok Tey, Nicholas Weber, Glen Kennedy	A Phase 3, Randomized, Double blind, Placebo controlled, Multicenter Study of BR alone Versus in Combination with Acalabrutinib (ACP 196) in Subjects with Previously Untreated Mantle Cell Lymphoma – Acerta ECHO
Jason Butler	Cameron Curley, Simon Durrant, Elango Subramonia Pillai, Siok Tey, Nicholas Weber, Kirk Morris	A Randomized, Open-label, Phase 3 Study Comparing Carfilzomib, Dexamethasone, and Daratumumab to Carfilzomib and Dexamethasone for the Treatment of Patients With Relapsed or Refractory Multiple Myeloma – 20160275 – Amgen Candor 275
Jason Butler	Cameron Curley, Glen Kennedy, Elango Subramonia Pillai, Siok Tey, Nicholas Weber, Kirk Morris, Ashleigh Scott	A Phase II, single arm, multicenter open label trial to determine the efficacy and safety of tisagenlecleucel (CTL019) in adult patients with refractory or relapsed follicular lymphoma – Novartis ELARA
Jason Butler	Ashleigh Scott, Nicholas Weber, Cameron Curley, Elango Subramonia Pillai, Kirk Morris	A multi-centre Phase II study to determine the response kinetics, safety and efficacy of pembrolizumab as frontline treatment of patients with Hodgkin Lymphoma considered unsuitable for ABVD – PLIMATH
Jason Butler	Cameron Curley, Kirk Morris, Simon Durrant, Nicholas Weber, Elango Subramonia Pillai, Ashleigh Scott	A Phase 3 Randomized, Controlled, Open-Label study of Selinexor, Bortezomib, and Dexamethasone (SVD) Versus Bortezomib and Dexamethasone (VD) In Patients With Relapsed or Refractory Multiple Myeloma (RRMM) – Karyopharm BOSTON

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

RBWH Research Group/Department Led Researchers <i>(RBWH staff in bold)</i>	Collaborative Researchers and Others <i>(RBWH staff in bold)</i>	Research Project Title
Glen Kennedy	Simon Durrant, Jason Butler, James Morton, Ashish Misra, Siok Tey, Elango Subramonia Pillai, Cameron Curley	A phase II study of humanized anti-IL-6 receptor antibody Tocilizumab (TCZ) to prevent development of acute graft versus host disease (GVHD) post HLA-mismatched allogeneic haematopoietic progenitor cell transplantation (HPCT) – TCZ II
Glen Kennedy	Sanjoy Paul, David Ritchie, David Gottlieb, John Moore, Julian Cooney, Simon Durrant, Jason Butler, James Morton, Ashish Misra, Siok Tey, Elango Subramonia Pillai, Cameron Curley	A phase III randomized study of humanized anti-IL-6 receptor antibody Tocilizumab (TCZ) to prevent development of acute graft versus host disease (GVHD) post HLA-matched allogeneic haematopoietic progenitor cell transplantation (HPCT) – TCZ III
Glen Kennedy	Geoff Hill, Simon Durrant, Jason Butler, Ashish Misra, Siok Tey, Elango Subramonia-Pillai, Cameron Curley	A phase I / II study of pegylated-Interferon-2alpha for relapsed haematological malignancy after allogeneic haematopoietic progenitor cell transplantation (HPCT)
Nicholas Weber	Paul Thomas, Samuel Kyle, Glen Kennedy, Kirk Morris, Simon Gray	Pilot study of 68Ga-Pentixafor positron emission tomography (PET) imaging in multiple myeloma
Nicholas Weber		Beta-lactam PK/PD in febrile neutropenia (Patient population: patients undergoing intensive chemotherapy with anticipated duration of neutropenia >7 days)
Nicholas Weber		Tolerability of early enteral feeding during allogeneic haematopoietic progenitor cell transplantation: a randomized comparison with 'standard' parenteral nutritional support
Nicholas Weber	Jason Butler, Ashish Misra, Kirk Morris, Cameron Curley, Elango Subramonia Pillai	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 – Beigene 304
Nienke Zomerdijk		The psychosocial impact of HSC donation on adult related donors
Nienke Zomerdijk		Evaluation of a psycho-educational resource to support adults who are donating stem cells to a family member
Simon Durrant		A Phase 3, Multicenter, Randomized, Double Blind Study of Bortezomib and Dexamethasone in Combination with Either Venetoclax or Placebo in Subjects with Relapsed or Refractory Multiple Myeloma Who are Sensitive or Naïve to Proteasome Inhibitors – ABBVIE BELLINI
Simon Durrant		A Phase 3, Randomized, Double-Blind Active-Controlled Study Evaluating Momelotinib vs Ruxolitinib in Subjects with Primary Myelofibrosis (PMF) or Post-Polycythemia Vera or Post-Essential Thrombocythemia Myelofibrosis (Post-PV/ET MF) – Gilead SIMPLIFY
Simon Durrant		An Open-Label Bosutinib Treatment Extension Study for Subjects With Chronic Myeloid Leukemia (CML) Who Have Previously Participated in Bosutinib Studies B1871006 or B1871008 (Protocol Number: B1871040) – Pfizer Ski Extension
Simon Durrant		Randomized, open label, multicenter phase III study of Efficacy And Safety in POLycythemia vera subjects who are resistant to or intolerant of hydroxyurea: JAK iNhibitor INC424 tablets verSus bEst available care – Novartis RESPONSE
Simon Durrant		Randomized, open label, multicenter phase IIIB study evaluating the efficacy and safety of ruxolitinib versus best available therapy in patients with polycythemia vera who are hydroxyurea resistant or intolerant – Novartis RESPONSE 2
Simon Durrant	Jason Butler, Elango Subramonia Pillai, Cameron Curley, Glen Kennedy, Nicholas Weber, Kirk Morris	A Phase 2/3 Multi-center Study Comparing Blinatumomab to Standard of Care in Subjects with Relapsed/Refractory Aggressive B-Cell Non-Hodgkin Lymphoma (20150292) – Amgen VERDI
Steven Lane	Glen Kennedy	Examination of genes that control the growth and survival of blood cancers

Collaborative Research Activity involving RBWH Research Group / Department

Collaborative Led Researchers	RBWH Researchers and Others <i>(RBWH staff in bold)</i>	Research Project Title
Monash University, Peter MacCallum Cancer Centre	Elango Subramonia Pillai, Michelle Spanevello, Jason Butler, Cameron Curley, Kirk Morris, Nicholas Weber, Ashleigh Scott	TREATT: A double blind, randomised controlled trial evaluating the safety and efficacy of tranexamic acid in patients with haematological malignancies with severe thrombocytopenia
The Australasian Leukaemia and Lymphoma Group (ALLG)	Glen Kennedy, Nicholas Weber, Cameron Curley, Jason Butler, Kirk Morris, Elango Subramonia Pillai, Simon Durant, Steven Lane	AML M16 – Sorafenib in Combination with Intensive Chemotherapy for Previously Untreated Adult FLT3-ITD Positive AML: A Phase 2 Randomised Double-Blind Placebo Controlled Multi-Centre Study
The Australasian Leukaemia and Lymphoma Group (ALLG)	Glen Kennedy, Cameron Curley, Jason Butler, Elango Subramonia Pillai, Steven Lane, Kirk Morris, Nicholas Weber, Simon Durant	ALLG NBCR – Australasian Leukaemia and Lymphoma Group Acute Myeloid Leukaemia National Blood Cancer Registry
The Australasian Leukaemia and Lymphoma Group (ALLG)	Jason Butler, Cameron Curley, Simon Durant, Glen Kennedy, Steven Lane, Ashish Misra, Kirk Morris, James Morton, Elango Subramonia Pillai, Nicholas Weber	NHL 29 – A Phase II study of Ibrutinib, Rituximanb and mini-CHOP therapy in very elderly patients with newly diagnosed DLBCL
The Australasian Leukaemia and Lymphoma Group (ALLG)	Steven Lane, Cameron Curley, Jason Butler, Nicholas Weber, Elango Subramonia Pillai	APML5: A phase 1 pharmacokinetic evaluation of oral arsenic trioxide in previously untreated patients with acute promyelocytic leukaemia
The Australasian Leukaemia and Lymphoma Group (ALLG)	Steven Lane, Cameron Curley, Jason Butler, Kirk Morris, Nicholas Weber, Elango Subramonia Pillai, Simon Durrant, Glen Kennedy	AML M21: A phase Ib/II clinical evaluation of Ponatinib in combination with 5-azacitidine in FLT3-ITD positive acute myeloid leukaemia
The Australasian Leukaemia and Lymphoma Group (ALLG)	Steven Lane, Cameron Curley, Jason Butler, Kirk Morris, Nicholas Weber, Elango Subramonia Pillai	LS17 REGALLIA: Studies to delineate the molecular and genomic basis of high risk ALL (Registry of Acute Lymphoblastic Leukaemia in Australasia and Associated Correlative Studies)
The Australasian Leukaemia and Lymphoma Group (ALLG)	Cameron Curley, Ashleigh Scott, Kirk Morris, Nicholas Weber	BLAM: A phase IIb study of Blinatumomab + Cytarabine (AraC) and Methotrexate in adult B-precursor Acute Lymphoblastic Leukaemia
Monash University	Jason Butler, Nicholas Weber	MRDR – Myeloma and Related Diseases Registry
Alfred Hospital	Nicholas Weber, Cameron Curley, Jason Butler, Kirk Morris, Elango Subramonia Pillai, Siok-Keen Tey, Ashleigh Scott	AMaRC – A randomized phase 2 study of bortezomib, cyclophosphamide and dexamethasone induction (VCD) compared with VCD and daratumumab induction followed by daratumumab maintenance (VCDD) for the initial treatment of transplant ineligible patients with multiple myeloma
State of QLD – Qld Genomics Health Alliance	Andrea Henden, Cameron Curley, Nicholas Weber, Louisa Gordon	QMGP – Queensland Myeloid Genomics Program Evaluation
University of Queensland, Princess Alexandra Hospital	Nicholas Weber, Leonie Naumann	The MyeEx Study: The Effect of an Individualised Exercise Intervention on Functional, Biological and Quality of Life Outcomes in Patients with Multiple Myeloma
Queensland Youth Cancer Service	Kirk Morris	National Projects with CanTeen – The Youth Cancer Service Experience of Care Survey
NHMRC	Jason Butler	Integrating immunity and genetics in Follicular Lymphoma to establish a prognostic score fit for the modern era

Research Awards and Achievements

Recipient <i>(RBWH staff in bold)</i>	Award	Event
Ashleigh Scott	RBWH Research Postgraduate Scholarship 2019 (\$44,000)	To perform research activities in 2019
Nienke Zomerdijk	UQ Faculty of Medicine Travel Scholarship (\$1,200)	To support research activities in 2019
Andrea Henden	ISCT-ASTCT Cell Therapy Scholarship	To attend the ISCT-ASTCT Cell Therapy Training Course in 2019
Siok Tey	Federal Government – Stem Cell Therapies Expert Advisory Panel	

Research Grants

Investigators <i>(RBWH staff in bold)</i>	RBWH Research Groups / Departments	Project Title	Granting Body	Total of funds awarded	Funds used in 2019	Years
Ashleigh Scott	Haematology/BMT	Using novel brain imaging to define mechanisms of persisting central nervous system toxicity ("Chemobrain") following allogeneic progenitor cell transplantation	RBWH Foundation Diamond Care Grants	\$40,000	\$40,000	2018-2019
Andrea Henden, Cameron Curley, Glen Kennedy, Nicholas Weber, Louisa Gordon	Haematology/BMT, QIMR	The Queensland Myeloid Genomics Program – improving the survival of children and adults with myeloid cancers Queensland Genomics	Queensland Genomics	\$837,208	\$418,604	2019-2020
Siok Tey, David Gottlieb, Glen Kennedy	Haematology/BMT	A phase I clinical study of adoptive transfer of regulatory T cells (Tregs) and low-dose interleukin-2 (IL-2) for the treatment of chronic graft-versus-host disease (GVHD): gene-marking to inform rational combination therapy	NHMRC	\$878,748	\$295,244	2019-2021
Siok Tey, Glen Kennedy	Haematology/BMT	Chimeric Antigen Receptor (CAR) T cells targeting CD19 antigen	Queensland Genomics	\$800,000	\$400,000	2019-2020
Siok Tey, Chris Fraser	Haematology/BMT/ QIMR	CHQ-QIMRB-RBWH Cancer Immunotherapy Project	Children's Hospital Foundation	\$80,000	\$40,000	2019-2020
Steven Lane	Haematology/BMT	Genetic modelling of MPN progression	Cancer Australia	\$200,000	\$100,000	2018-2019
Steven Lane	Haematology/BMT	Understanding Chemoresistance in AML	CSL Centenary Fellowship	\$1.25m	\$250,000	2017-2021
Steven Lane	Haematology/BMT	Interferon challenge	MPN Research Foundation (USA)	\$300,000	\$100,000	2018-2020

2019 Research Publications

Journal Articles

- Martins JP, Andoniou CE, Fleming P, Kuns RD, Schuster IS, Voigt V, Daly S, Varelias A, **Tey SK**, Degli-Esposti MA, **Hill GR**. Strain-specific antibody therapy prevents cytomegalovirus reactivation after transplantation. *Science*. 2019; Jan 18;363(6424):288-293. doi: 10.1126/science.aat0066
- Zhang P, **Curley CI, Mudie K, Nakagaki M, Hill GR, Roberts JA, Tey SK**. Effect of plasmapheresis on ATG (Thymoglobulin) clearance prior to adoptive T cell transfer. *Bone Marrow Transplantation*. 2019; Mar 19. doi:10.1038/s41409-019-0505-5
- Ling VY**, Saw J, Tremblay CS, Sonderegger S, Toulmin E, Boyle JA, Chiu SK, **Lane SW**, Ting SB, Curtis DJ. Attenuated acceleration to leukemia after Ezh2 loss in NHD13 myelodysplastic syndrome. *HemaSphere*. 2019; 3:(4).doi: 10.1097/HS9.0000000000000277
- Lane SW**. Unravelling the loops of resistance in ALL. *The Hematologist*. 2019; 16(3)
- Lane SW**. Beating AML: Know your enemy. *The Hematologist*, 2019; 16(2)
- Yuan Y, Mediawake H, Bokhari SW, Holley A, **Lane SW**. Acute promyelocytic leukaemia with marked symptomatic hyperleukocytosis. *Br J Haem*. 2019. In Press
- Zomerijk N, Turner J, Hill GR, Gottlieb D**. Adult related haematopoietic stem cell donor care: Views of Transplant Nurses. *European Journal of Oncology Nursing*. 2019; 41: 56-63. <https://doi.org/10.1016/j.ejon.2019.05.012>
- Weber N, Jackson K, McWhinney B, Ungerer J, Kennedy G, Lipman J, Roberts JA**. Evaluation of pharmacokinetic/pharmacodynamic and clinical outcomes with 6-hourly empiric piperacillin-tazobactam dosing in hematological malignancy patients with febrile neutropenia. *Journal of Infection and Chemotherapy*. 2019; 25(7): 503-508 <https://doi.org/10.1016/j.jiac.2019.02.014>
- Nakagaki M, Button E, Keating A, Marsh J, Mitchell C, Birchley A, **Kennedy GA**. Hyperhydration is not necessary for high-dose melphalan in stem cell transplantation. *Bone Marrow Transplantation*. 2019; Jun 11. <https://doi.org/10.1038/s41409-019-0586-1>
- Thirunavukarasu C, **Weber N, Morris K, Subramonia Pillai E, Curley C, Butler J & Kennedy G**. Weekly cyclophosphamide-bortezomib-dexamethasone (CBD) induction performs comparably to twice weekly dosing with respect to both response rates and survival post-autologous transplant. *Acta Haematologica*. 2019; Nov 5:1-2. doi: 10.1159/000501791
- Andersen S, **Weber N, Kennedy G**, Brown T, Banks M, Bauer J. Tolerability of proactive enteral nutrition post allogeneic haematopoietic progenitor cell transplant: a randomised comparison to standard care. *Clinical Nutrition*. 2019; June 19. doi: 10.1016/j.clnu.2019.06.012
- Nakagaki M, Button E**, Keating A, Marsh J, Mitchell C, Birchley A, **Kennedy GA**. Hyperhydration is not necessary for high-dose melphalan in stem cell transplantation. *Bone Marrow Transplantation*. 2019; Jun 11. doi: 10.1038/s41409-019-0586-1
- Ardalan ZS, Chandran S, Vasudevan A, Angus P, Grigg A, He S, Macdonald GA, Strasser SI, Tate CJ, Kennedy GA, Testro A & Gow PJ**. Management of patients with EPP related progressive liver disease. *Liver Transplantation*. 2019 Aug 30. doi: 10.1002/lt.25632. [Epub ahead of print]
- Mason JA**, Robertson JD. Extreme skewing of X-inactivation: Rethinking severe haemophilia in women and girls. *Haemophilia*. 2019; 25(4): e286-e287. doi: 10.1111/hae.13755

Journal Articles (cont)

15. **Ling VY**, Saw J, Tremblay CS, Sonderegger S, Toulmin E, Boyle JA, Chiu SK, **Lane SW**, Ting SB, Curtis DJ. Attenuated acceleration to leukemia after Ezh2 loss in NHD13 myelodysplastic syndrome. *HemaSphere*. 2019; 3(4): e277. doi: 10.1097/HS9.0000000000000277
16. Straube J, **Lane SW**. TARGETing genetic drivers of MPN at single cell resolution. *The Hematologist*. 2019; 16:(5)
17. **Ling VY**, **Lane SW**. Piecing together the bone marrow niche. *The Hematologist*. 2019; 16(4)
18. Austin RJ, Straube J, Bruedigam C, Pali G, Jacquelin S, Vu T, Green J, Grasel J, Lansink L, Cooper L, Lee S, Chen N, Lee C, Haque A, Heidel FH, D'Andrea R, Hill GR, Mullally A, Milsom MD, Bywater M*, **Lane SW***. Distinct effects of ruxolitinib and interferon-alpha on murine JAK2V617F myeloproliferative neoplasm hematopoietic stem cell populations. *Leukemia*. 2019; November doi: 10.1038/s41375-019-0638 (*denotes equal contribution)
19. **Lane SW**. Inflammation in del(20q): a MST opportunity? *Blood*. 2019; 134(20): 1685-1686. doi: 10.1182/blood.2019003028
20. Kumar R, Bunn PT, Singh SS, Ng SS, Montes de Oca M, Rivera FD, Chauhan SB, Singh N, Faleiro RJ, Edwards CL, Frame TCM, Sheel M, Austin RJ, **Lane SW**, Bald T, Smyth MJ, **Hill GR**, Best SE, Haque A, Corvino D, Waddell N, Koufariotis L, Mukhopadhyay P, Rai M, Chakravarty J, Singh OP, Sacks D, Nylén S, Uzonna J, Sundar S, Engwerda CR. Type 1 interferons suppress anti-parasitic immunity and can be targeted to improve treatment of visceral leishmaniasis. *Cell Reports*. 2019; In press
21. **Henden AS**, Varelias A, **Leach J**, **Sturgeon E**, **Avery J**, Kelly J, Olver S, Samson L, Hartel G, **Durrant S**, **Butler J**, **Morton AJ**, **Misra A**, **Tey SK**, **Subramoniapillai E**, **Curley C**, **Kennedy G**, **Hill GR**. Pegylated interferon-2 α invokes graft-versus-leukemia effects in patients relapsing after allogeneic stem cell transplantation. *Blood Adv*. 2019; 3(20): 3013-3019. doi: 10.1182/bloodadvances.2019000453
22. Odedra A, Laloo DG, **Kennedy G**, Llewellyn S, McCarthy JS. Safety and effectiveness of apheresis in the treatment of infectious diseases: a systematic review. *Journal of Infection*; 2019 Oct 14. pii: S0163-4453(19)30285-3. doi: 10.1016/j.jinf.2019.09.014
23. Andersen S, Staudacher H, **Weber N**, **Kennedy G**, Varelias A, Banks M, Bauer J. Pilot study investigating the effect of enteral and parenteral nutrition on the gastrointestinal microbiome post-allogeneic transplantation. *British Journal of Haematology*. 2019; Oct 14. doi: 10.1111/bjh.16218
24. Varelias A, Gartlan KH, Wilkinson AN, Olver SD, Samson LD, **Tey SK**, MacDonald KPA, **Hill GR**. Expansion of IL-17A-secreting CD8(+) mucosa-associated invariant T cells in peripheral blood following stem cell mobilization. *Blood Advances*. 2019; 3(5): 718-723
25. Saldan A, Martins JP, Zhang P, Kuns RD, Johnston R, Waddell N, **Lane SW**, Fleming P, Andoniou CE, Degli-Esposti MA, **Hill GR** and **Tey SK**. Interplay between cytomegalovirus infection and graft-versus-leukaemia response. 17th International Congress of Immunology (IUIS), Beijing Peoples R China, Oct 19-23, 2019
26. **Kennedy G**, **Tey SK**, **Curley C**, **Butler JP**, **Misra A**, **Subramoniapillai E**, **Morton J**, **Durrant S**, **Hendon AS**, Moore J, Ritchie D, Gottlieb D, Cooney J, Buizen L, Paul SK, **Hill GR**. Results of a Phase III Double-Blind Study of the Addition of Tocilizumab Vs. Placebo to Cyclosporin/ Methotrexate Gvhd Prophylaxis after HLA-Matched Allogeneic Stem Cell Transplantation. *Blood*. 2019; 134 (Supplement_1): 368. <https://doi.org/10.1182/blood-2019-126285>
27. Wilkinson AN, Chang K, Kuns RD, **Henden AS**, Minnie SA, Ensby KS, Clouston AD, Zhang P, Koyama M, Hidalgo J, Rose-John S, Varelias A, Vuckovic S, Gartlan KH, **Hill GR**. IL-6 dysregulation originates in dendritic cells and mediates graft-versus-host-disease via classical signalling. *Blood*. 2019; Dec 5
28. Koyama M, Mukhopadhyay P, Schuster IS, **Henden AS**, Hülsdünker J, Varelias A, Vetizou M, Kuns RD, Robb RJ, Zhang P, Blazar BR, Thomas R, Begun J, Waddell N, Trinchieri G, Zeiser R, Clouston AD, Degli-Esposti MA, **Hill GR**. MHC class II antigen presentation by the intestinal epithelium initiates graft-versus-host disease and is influenced by the microbiota. *Immunity*. 2019; Nov 19
29. Gartlan KH, Koyama M, Lineburg KE, Chang K, Ensby KS, Kuns RD, **Henden AS**, Samson LD, Clouston AD, Lopez AF, MacDonald KPA, **Hill GR**. Donor T-cell-derived GM-CSF drives alloantigen presentation by dendritic cells in the gastrointestinal tract. *Blood Advances*. 2019; Oct 8
30. Schnoeder T, Schwarzer A, Perner F, Kirkpatrick J, Dolnik A, Döhner K, Arriba-Tutusaus P, Assi S, Bruedigam C, Kathner C, Eifert T, Buschbeck M, Nafria I Fedi M, Ptasinska A, Elefanti A, Ng E, Bierhoff H, Gras F, Matziolis G, Fischer K, Heidenreich O, **Lane SW**, Bullinger, von Eyss B, Ori A, Bonifer C, Heidel F. Loss of Phospholipase C Gamma 1 (PLCG1) Impairs AML1-ETO Induced Leukemia Stem Cell Self-Renewal, *Blood*. 2019; 134 (Supplement_1): 531.

2019 Conference Presentations – Invited Speaker, Oral and Poster

Invited Speakers

1. **Steven Lane** – 29.11.2019 ‘Brisbane Diamantina Health Partners and cancer research,’ Brisbane Cancer Conference Presentation, Brisbane, November 2019, Plenary Speaker
2. **Steven Lane** – 14.11.2018, “Targeted therapy in myeloproliferative neoplasm’, Barossa Cell Signaling meeting, invited speaker
3. **Steven Lane** – 11.11.2019. “Precision oncology in blood cancers” Australian Precision Oncology Symposium, paid invited plenary speaker APOS conference, Adelaide
4. **Steven Lane** – 05.08.2019 “Life as a Clinician Scientist,” Queensland Clinical Sciences Forum, Australian Academy of Health and Medical Sciences
5. **Steven Lane** – 21.03.2019 “Asking questions with PDX preclinical trials of novel drug treatments in AML” ALLG/VCCC AML symposium, Walter and Eliza Hall Institute, Melbourne
6. **Steven Lane** – 30.03.2019 “Transplantation in AML” GET Weekend, Novartis, Sydney
7. **Steven Lane** – 03.2019 “Clonal evolution of blood cancers and how does this influence treatment response,” Princess Alexandra Hospital, Department of Haematology and Oncology.

Oral Presentations

1. **Kennedy G, Curley C, Tey SK, Butler J** – Clinical Allogeneic Transplantation: Acute and Chronic GVHD, Immune Reconstitution: Clinical Trials – ASH 61st Annual Meeting and Exposition. 7-10 December 2019
2. **Kennedy G, Tey SK, Curley C, Butler JP, Misra A, Subramoniapillai E, Morton J, Durrant S, Hendon AS**, Moore J, Ritchie D, Gottlieb D, Cooney J, Buizen L, Paul SK, **Hill GR**. Results of a Phase III Double-Blind Study of the Addition of Tocilizumab Vs. Placebo to Cyclosporin/ Methotrexate Gvhd Prophylaxis after HLA-Matched Allogeneic Stem Cell Transplantation. American Society of Hematology, 61st Annual Meeting, Orlando, USA
3. **Weber N**, Thirunavukarasu C, Kyle S, Seymour L, **Morris K, Scott A, Butler J, Tey S, Curley C, Subramoniapillai E, Kennedy G**, Thomas P – CXCR4 positron emission tomography for the detection of bone disease in newly diagnosed myeloma – 17th International Myeloma Workshop, 2019 Boston, USA
4. Yadanar Lwin Y, Steven Tran S, Donna Aarons D, Leonie Wilcox L, Simon He S, Spencer A, Purtill D, Mcewan A, Browett P, Butler A, Carter J, Barty P, **Kennedy G**, Szer J, Ritchie D, Greenwood G, Larsen S, Milliken S, Lai H, Gottlieb D, Kwan J & Hamad N - An update of Australasian trends in allogeneic stem cell transplantation in myelofibrosis in the molecular era – Haematology Society of Australia and New Zealand, 2019 Congress, Perth
5. Button E, Roberts N, Northfield S, Kelly-Austin A, **Gavin N, Wyld D, Chan R**, Kulperger S, **Kennedy G** & Yates P – Rainy Day Care Project pilot – Haematology Society of Australia and New Zealand, 2019 Congress, Perth
6. **Siok Tey** – 28.11.2019 ‘CAR-T cells- a revolutionary treatment’ disruptive technology,’ Brisbane Cancer Conference, Queensland
7. **Siok Tey** – 13.11.2019 “Cell therapy for blood cancer – Delivering on the promise.” ASSCR-AGCTS-ISCT ANZ 2019 Joint Scientific Meeting, Brisbane
8. **Siok Tey** – 12.11.2019 – “Stem Cell Research: Now & the Future – Public forum.” Organised by ASSCR and National Stem Cell Foundation
9. **Siok Tey** – 24.10.2019 – “Cellular Therapies Program” Cancer Care Services half day Research Retreat, RBWH, Brisbane
10. **Siok Tey** – 12.09.2019 – “The critically unwell patient with cancer, a multidisciplinary challenge” Herston State of the Art Healthcare Symposium, RBWH, Brisbane
11. **Siok Tey** – 29.8.2019 – “Bone marrow transplant (& cellular therapy) – a local update” – Princess Alexandra Hospital, Brisbane
12. **Siok Tey** – 2.8.2019 “Chimeric Antigen Receptor T cells – Past, present and future.” Brisbane Immunology Group Annual Meeting, Noosa, Queensland
13. **Siok Tey** – 22.7.2019 “Analysing the peripheral blood maturation of natural killer (NK) cells following allogeneic bone marrow transplantation.” Oz Single Cell Consortium conference, Melbourne
14. **Siok Tey** – 16.3.2019 “Cell and gene therapy – wetlab science meets clinical medicine.” Australian Academy of Health and Medical Sciences Queensland Clinical Symposium, Brisbane
15. **Steven Lane** – 13.11.2019 “Precision medicine trials in blood cancer,” ALLG (Australian Lymphoma & Leukaemia Group) Annual Scientific Meeting, Adelaide
16. **Steven Lane** – 22.08.2019 “Junior PI Career Development Survival Kit,” International Society of Experimental Hematology, Annual Scientific Meeting, Brisbane
17. **Steven Lane** – 15.08.2019 “Translational research to improve outcomes for patients with blood cancer,” Faculty Seminar, QIMR Berghofer, Brisbane
18. **Steven Lane** 03.2019 “Clonal evolution of blood cancers and how does this influence treatment response,” Princess Alexandra Hospital, Department of Haematology and Oncology
19. **Steven Lane** 2019 Memorial Sloan Kettering Cancer Centre, Centre for Hematological Malignancies Seminar Series
20. **Ling V**, Godfrey W, Jacquelin S, Straube J, Cooper L, Bruedigam C, Tey S, Bullinger L, Herold M, Bywater M
21. **Lane S**. Targeting control of cell cycle enhances the activity of conventional chemotherapy in chemoresistant acute myeloid leukaemia. HSAZ, Blood 2019 – Perth, WA 20-23 October
22. **Stewart Hunt, Glen Kennedy, Greg Hapgood, Georgina Hodges, Waqas Bokhari**. Outcomes of relapsed/refractory Hodgkin’s lymphoma with salvage treatment and autologous stem cell transplant in Queensland, Australia: a multi-centre retrospective study. HSAZ, Blood 2019 – Perth, WA 20-23 October.

Poster Presentations

1. **Mediwake H, Morris K, Kennedy G**. Early outcomes of haploidentical stem cell transplant are not superior to mismatched unrelated donor transplantation. Blood Meeting. 20-23 October 2019, Perth
2. Katherine Budgen, **Cameron Curley**. Urban-rural survival outcomes in acute myeloid leukaemia patients in Queensland. HSAZ, Blood 2019 – Perth, WA 20-23 October
3. **Rakin Chowdhury, Jason Butler, Ashleigh Scott**. Single-centre Australian experience of allogeneic haematopoietic progenitor cell transplantation in adult acute T-Lymphoblastic Leukaemia/Lymphoma. HSAZ, Blood 2019 – Perth, WA 20-23 October
4. Michael Dickinson, **Jason Butler**, Robin Gasiorowski, Sushrit Patil, Chan Cheah, Leanne Berkahn. PLIMATH: A Phase II study of Pembrolizumab as Frontline Treatment of Patients with Hodgkin Lymphoma (HL) considered Unsuitable for ABVD: An Australasian, Investigator-led Trial in Progress. HSAZ, Blood 2019 – Perth, WA 20-23 October
5. **Gianna Pastore, Kirk Morris, Waqas Bokhari, Nicholas Weber, Jason Butler, Steven Lane, Siok Tey, Elango Pillai, Ashleigh Scott, Glen Kennedy, Cameron Curley**. Cisplatin induced acute kidney injury in the treatment of mantle cell lymphoma, a single centre retrospective series. HSAZ, Blood 2019 – Perth, WA 20-23 October
6. **Caitlin Thirunavukarasu, Nicholas Weber, Kirk Morris, Elango Subramonia Pillai, Cameron Curley, Jason Butler, Glen Kennedy**. Real world outcomes post novel agent induction and autologous stem cell transplant (ASCT) in newly diagnosed multiple myeloma. HSAZ, Blood 2019 – Perth, WA 20-23 October

Poster Presentations (cont)

7. **Hannah George, Elango Subramonia Pillai, Cameron Curley, Kirk Morris, Nicholas Weber, Waqas Bokhari, Jason Butler, Glen Kennedy.** Opportunity for improved palliative care practice in haematology units. HSANZ, Blood 2019 – Perth, WA 20-23 October
8. Iland H, Reynolds J, Boddy A, Khoo L, Yuen S, Bryant C, Gasiorowski R, Wei A, **Lane SW**, Harrup R, Marlton P, Risteski C. 15.06.2019 “ALLG APL5: A comparative bioavailability study of encapsulated oral arsenic trioxide and intravenous arsenic trioxide in patients with acute promyelocytic leukemia undergoing consolidation therapy.” European Hematology Association, Annual Scientific Meeting, Amsterdam.

Details of staff that completed their PhDs in 2019 within your department / research group

Name <i>(RBWH Staff in bold)</i>	Name of Project	Completed Date	University Affiliation
Dr Andrea Henden	Anti-leukaemia effects of type I and type III Interferons	May 2019	UQ
Dr Victoria Ling	Factors that regulate response to chemotherapy in myelodysplastic syndromes and acute myeloid leukaemia	June 2019	UQ
Dr Nienke Zomerdijk	The psychosocial impact of donating haematopoietic stem cells on adult related donors	December 2019	UQ

Other communications and outputs:

REVIEW PAPERS AND COMMENTARIES

Zhang P, Tey SK. Adoptive T Cell Therapy Following Haploidentical Hematopoietic Stem Cell Transplantation. *Front Immunol.* 2019 Aug 6; 10:1854. Review. Doi: 10.3389/fimmu.2019.01854 (PDF available online)

TEY SK, Hill GR. Chronic Graft-Versus-Host Disease: Therapeutics at Last? *The Hematologist – American Society of Hematology News and Reports.* 2019; 16(3): 6 -7.

PUBLISHED REVIEWS, EDITORIALS AND CORRESPONDENCE

1. **Lane SW.** Inflammation in del(20q): A MST opportunity? **Blood** 2019. 134(20):1685-1686. DOI 10.1182/blood.2019003028
2. Heidel FH, **Lane SW.** Benefit/ Risk Profile of AOP2014 in Low-risk patients with PV (Low-PV). *Clinical Trials Corner. The Hematologist*, 2019 Nov
3. Straube J, **Lane SW.** TARGETing genetic drivers of MPN at single cell resolution, **The Hematologist**, 2019 Sep
4. **Ling YV, Lane SW.** Piecing together the bone marrow niche, **The Hematologist**, 2019 July (Cover article)
5. Forsyth CJ, Chan WH, Grigg AP, Cook NC, Lane SW, Burbury KL, Perkins AC, Ross DM. Recommendations for the use of pegylated interferon-alpha in the treatment of classical myeloproliferative neoplasms. **Intern Med J.** 2019 49(8): 948-54
6. **Lane SW.** Unravelling the loops of resistance in ALL, **The Hematologist**, 2019 May
7. **Lane SW.** Beating AML: Know Your Enemy, **The Hematologist**, 2019 March, 12
8. Yuan Y, Mediwake H, Bokhari SW, Holley A, **Lane SW.** Acute promyelocytic leukaemia with marked symptomatic hyperleukocytosis. **Br J Haem** 2019 186(5), 649.

SESSION CHAIR (NATIONAL AND INTERNATIONAL CONFERENCES) – STEVE LANE

- Blood 2019: Session chair – Multiple myeloma, Perth, Australia
- International Society of Experimental Hematology: Session Chair, Haematological Malignancies, August 2019
- Haematology Society of Australia and NZ, Qld State meeting – overall conference convener
- Including chairing a session, arranging national and international speakers, coordinating sponsors.

SESSION CHAIR (NATIONAL AND INTERNATIONAL CONFERENCES) – SIOK TEY

- 05.19 – International Society of Cellular Therapies, Melbourne.



HAEMOPHILIA CENTRE



Dr Jane Mason
A/Director of Haemophilia
Cancer Care Services RBWH

2019 was an exciting year for the Queensland Haemophilia Centre (QHC) working in collaboration with the Clinical Research Unit Cancer Care Services and the Cellular Therapy/ BMT Laboratory. As part of our participation in an ongoing phase 3 gene therapy study (BMN 270-301) we provided 4 severe haemophilia A patients with a single infusion of an AAV5-FVIII intravenous gene therapy vector.

For most individuals with severe haemophilia A, lifelong home intravenous infusions of recombinant factor VIII concentrate are required every second day to maintain factor levels and prevent serious bleeds. The possibility that a once off infusion of gene therapy will lead to sustained liver production of factor VIII (and remove the need for any ongoing intravenous therapy) is a very exciting prospect for our patient cohort and the wider haemophilia community. The use of an intravenous AAV gene therapy vector aimed at long term cure of an inherited disease has not previously been undertaken in QLD. Successful participation in this study has enabled us to develop experience and further our local operating procedures around safe administration of Genetically Modified Organism (GMO) based therapies. The QHC looks forward to being involved in further gene therapy studies in both Haemophilia A and Haemophilia B in 2020. The QHC also continue as an active site in a multi-centre phase 3 study evaluating the efficacy of a factor VIII mimetic (Emicizumab) given via monthly subcutaneous injection. We continue to collaborate with the Australian Haemophilia Centre’s Directors Organisation (AHCDO) in projects involving

Australian Bleeding Disorder’s Registry (ABDR) and via this framework recently provided clinical and laboratory data pertaining to patients who received access to novel extended half-life (EHL) clotting factor concentrates via the recent National Blood Authority Interim Arrangement.

Current RBWH Research Group / Department Led Research Activity

RBWH Research Group / Department Led Researchers <i>(RBWH staff in bold)</i>	Collaborative Researchers and Others <i>(RBWH staff in bold)</i>	Research Project Title
Renee Squires, Jane Mason	Joanne Beggs	Prospective study of Von Willebrand Factor (VWF) assay abnormalities correlated with clinical bleeding symptoms in an unselected group of patients with Myeloproliferative Neoplasm (MPN)

Collaborative Research Activity involving RBWH Research Group / Department

Collaborative Led Researchers	Service Line Researchers and Others <i>(RBWH staff in bold)</i>	Research Project Title
Sponsor: Hoffmann-La Roche	Jane Mason, Beryl Zeissink, Alex Connolly	A Study to Evaluate the Efficacy, Safety, Pharmacokinetics, and Pharmacodynamics of Emicizumab Given Every 4 Weeks in Participants With Hemophilia A (HAVEN 4)
Sponsor: BioMarin	Jane Mason, Nicholas Weber, Michelle Spanevello	A Prospective Non-Interventional Study of Bleeding Episodes, Factor VIII Infusions, and Patient-Reported Outcomes in Individuals with Severe Haemophilia A
Sponsor: BioMarin	Jane Mason, Nicholas Weber, Michelle Spanevello	A Phase 3 Open-Label, Single-Arm Study to Evaluate the Efficacy and Safety of BMN 270, an Adeno-Associated Virus Vector-Mediated Gene Transfer of Human Factor VIII in Hemophilia A Patients with Residual FVIII levels <1 IU/dL Receiving Prophylactic FVIII Infusions

2019 Research Publications

Journal Articles

1. O'Brien B, **Mason J**, Kimble R. Bleeding Disorders in Adolescents with Heavy Menstrual Bleeding: The Queensland Statewide Paediatric and Adolescent Gynaecology Service. *Journal of pediatric and adolescent gynecology*. 2019;32(2):122-7
2. **Mason JA**, Robertson JD. Extreme skewing of X-inactivation: Rethinking severe haemophilia in women and girls. *Haemophilia*. 2019; 25(4): e286-e287.

2019 Conference Presentations – Invited Speaker, Oral and Poster

Orals Presentations

1. **Mason JA**. Gene therapy in Haemophilia A. HSAZQLD Meeting. 23rd March 2019, Brisbane.

Poster Presentations

1. Jackson M, **Connolly A**, **Mason JA**. Chest wall pseudotumour in a patient with severe haemophilia A and an inhibitor. International Society of Thrombosis and Haemostasis Congress. July 2019, Melbourne
2. **Mason JA**, Parikh S, Curtin J, McRae S, Barnes C, Tapp H, Russell S, Carter T, Pidcock M, Hitchins S, Brown SA, Tran H, Robertson JD. Impact of the SIPPET study on management of Australian PUPs. International Society of Thrombosis and Haemostasis Congress. July 2019, Melbourne
3. Webzell S, **Connolly A**. Current Nursing Workloads and Implications for the Future Within Adult Haemophilia Treatment Centres in Australia. International Society of Thrombosis and Haemostasis Congress. July 2019, Melbourne. Haemophilia Foundation Australia Conference, October 2019, Sydney. Blood conference November 2019, Perth
4. **Connolly A**, **Zeissink B**. Case study of a haemophiliac pseudotumour in a patient with severe haemophilia A with a high titre inhibitor. Haemophilia Foundation Australia Conference, October 2019, Sydney
5. **Riley L**. Connecting the Haemophilia Community Through Art. Haemophilia Foundation Australia Conference, October 2019, Sydney.

Other communications and outputs



CANCER CARE NURSING PROFESSORIAL PRECINCT



Michael Smith
Nursing Director
Cancer Care Services RBWH

The Cancer Nursing Professorial Precinct is a strategic collaboration between nurses in Cancer Care Services, Royal Brisbane and Women's Hospital (RBWH) and academics in the School of Nursing, Queensland University of Technology (QUT). The Precinct is led by Professor Patsy Yates and operationalised by the Nursing Executives, and Nurse Researchers who are in joint positions between the hospital and university. The aim of the Precinct is to build capacity for embedding research and innovation into day-to-day clinical practice and develop a world-class academic comprehensive cancer centre that improves patient outcomes. The Precinct is creating a thriving culture of research that delivers continuous service improvement and evidence-based care.

Focus areas for the Precinct's research program continue to include vascular access device management, prevention of bloodstream infections, survivorship care, palliative care and patient reported outcome measures. A key strength of the Cancer Nursing Professorial Precinct lies in the team's ability to collaborate widely. In 2019, RBWH cancer nurses worked with academic institutions including QUT, Griffith University, University of Queensland, QIMR, Microba, and Bond University. Collaborations also occurred with the Princess Alexandra Hospital, Leukaemia Foundation, Cancer Nurses Society of Australia,

Haematology Society of Australia and New Zealand and with researchers in USA. These collaborations continue to enhance the quality and impact of the research conducted in Cancer Care Services at the RBWH.

Our vision:

The Precinct has a vision to embed nursing-led research across the service line to improve service provision, patient outcomes and experiences. In 2019, the Nursing Research Internship program was introduced, which expanded on the existing 12-week Evidence Based Practice program. The program provides nursing staff with support, resources and guidance to develop and lead their own research project. Nurses enrolled in the program choose a topic which is relevant to their clinical practice and aligned to the needs of the service line. The interns collaborate broadly with the multidisciplinary team in addition to partnering with universities and research institutes. This initiative truly is translational with findings driving nursing practice and in turn improving patient outcomes and experience. Presentations on the establishment of this innovative program have received awards at national conferences. Research is being conducted around the reach, effectiveness, adoption, implementation and maintenance of this program so we can embed research from the ground up in our clinical areas.

Research highlights:

Nursing research continued to grow in 2019 with 20 nursing-led projects conducted in the department and research funding secured from various organisations. Nurses in Cancer Care Services are well represented in leadership positions in professional bodies and are invited speakers at local, national and international conferences. Cancer Care Services has a strong culture of nurses pursuing post-graduate study and research higher degrees. In 2019, several nurses continued or commenced such studies and were awarded competitive scholarships. A key highlight was Dr Nicole Gavin being awarded a PhD. Dr Gavin's work was also acknowledged in several awards including: Best Clinical Practice / Innovation Paper at Cancer Nurses Society of Australia Annual Congress 2019; Best Nursing Research Award Herston Symposium 2019; and Best Nursing Presentation at Blood 2019. Dr Elise Button was awarded a QUT Outstanding Thesis Award for her PhD completed in 2018. The group continues to publish nursing-led research in quality academic journals and focus on translation of findings into the service line to fast-track benefits to patients and families.

Supervised Post-Graduate Research Students

Name <i>(RBWH staff in bold)</i>	Current Studies <i>(e.g. PhD, Masters etc.)</i> University <i>(duration)</i>	Research Project Title	Supervisors <i>(RBWH staff in bold)</i>
Brigid Scanlon	PhD QUT (2019-2021)	What factors affect culturally and linguistically diverse populations accessing Cancer Care Services in Brisbane North	Jo Durham, Mark Brough, David Wyld
Robyn Matthews	Master of Applied Science <i>(Research)</i> , QUT (2018-2019)	Exploring the education needs of health care professionals in relation to end-of-life care in the acute care setting	Raymond Chan, Elise Button , Patsy Yates
Natasha Roberts	PhD QUT (2016-2019)	Patient Reported Outcomes in a Medical Oncology Setting	Monika Janda, Kim Alexander, David Wyld
Midori Nagasaki	PhD, University of Queensland (2019-2021)	Improving mucositis care in people undergoing stem cell transplantation	Karen Whitfield, Glen Kennedy, Alexandra Clavarino, Elise Button

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

Name <i>(RBWH Staff in bold)</i>	Type of Position	FTE	Funding Source <i>(operational/ external/in-kind)</i>	Research Program	Affiliated University/ies
Nicole Gavin	Nurse researcher	0.3	QUT (2017-current)	School of Nursing (no particular program)	QUT
Elise Button	Nurse researcher	0.2	QUT (2017-current)	School of Nursing (no particular program)	QUT

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

Name	Position	Research Program	Affiliated University/ies
Patsy Yates	Distinguished Professor	Lead, Cancer Care Nursing Professorial Precinct	Queensland University of Technology. Centre for Palliative Care Research and Education

Current RBWH Research Group / Department Led Research Activity

RBWH Research Group/ Department Led Researchers <i>(RBWH staff in bold)</i>	Collaborative Researchers and Others <i>(RBWH staff in bold)</i>	Research Project Title
Nicole Gavin	Julie Flynn , Emily Larsen, Nicole Marsh, Joan Webster <i>(Griffith University)</i>	Cancer caRE: The risk factors of vEnous access failuRe (CARETaKER Study)
Nicole Gavin	Gillian Nasato, Sarah Northfield, Glen Kennedy, David Wyld, Michael Smith, Alison Alexander , Nicole Marsh, Emily Larsen, Krispin Hajkowitz <i>(ID)</i> , Trent Atkinson <i>(DMI)</i> , Barbara Hower <i>(VASE)</i> , Fiona Coyer <i>(QUT)</i> , Patsy Yates, Peter Mollee <i>(PAH)</i>	Central Venous Access Device Registry
Natasha Roberts	Medical Oncology, Radiation Oncology, Haematology Cancer Care Services, RBWH	Poster Project: A study to describe oncology patient perceptions of research
Natasha Roberts	Haryana Dhillon <i>(Uni of Syd)</i> , Jan Davis <i>(Box Hill)</i> , Craig Gedye <i>(Mater Newcastle)</i> , Australia New Zealand Urogenital and Prostate Cancer Trials Group	Patient Experience of Participating in a Clinical Trial
Elise Button	Elise Button , Patsy Yates, Sara Baniahmadi, Marghie Murgo, Naomi Poole, Angie Dalli	QUality CompreheNsive End-of-Life Care: STandard Five (QUANTum) study
Elise Button	Elise Button, Nicole Gavin , Jason Butler, Michael Smith, Patsy Yates	Exploring the values, preferences, choices for care, and decision making of people with a haematological malignancy, their carer and health care professions (EXPLORE) study
Elise Button	Elise Button, Nicole Gavin, Natasha Roberts , Greg Merlo, Jason Butler, Patsy Yates	Identifying risk of deteriorating and dying in people with a haematological malignancy (IDENTIFY study)
Veronica Percival	Nicole Gavin, Jenni Leutenegger, Elise Button	Post-dural puncture headache following intrathecal chemotherapy via lumbar puncture (LP). How long should patients remain recumbent? (The PLANE Study)

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

RBWH Research Group/ Department Led Researchers <i>(RBWH staff in bold)</i>	Collaborative Researchers and Others <i>(RBWH staff in bold)</i>	Research Project Title
Lisa Wong	Nicole Gavin, Elise Button, Therese Hayes, Jenni Leutenegger, Michael Smith	Improving Care of Sepsis and early detection of deteriorating patients in Cancer Care Services
Brigid Scanlon	Jo Durham, Mark Brough, David Wyld	What factors affect culturally and linguistically diverse populations accessing Cancer Care Services in Brisbane North
Nicole Gavin	Nicole Gavin, Emily Russell, Paul Klages, Tracy Glynn, Melissa Eastgate, Jenni Leutenegger, Eve Hutchinson, Amanda Sutherland, David Paterson <i>(UQCCR)</i> , Claire Rickard <i>(GU)</i> , Nicole Angel <i>(Microba)</i>	Exploring changes in gastrointestinal tract microbiome and their influence on mucosal barrier injury laboratory confirmed bloodstream infection in patients diagnosed with high risk features of acute myeloid leukaemia (The Microbiome Study)
Claire Wessling	Nicole Gavin, Emily Russell, Paul Klages, Tracy Glynn, Melissa Eastgate, Jenni Leutenegger, Eve Hutchinson, Amanda Sutherland, Carolina Sandler <i>(QUTIHBI)</i> , Samantha Keogh <i>(QUTIHBI)</i> , Bronwyn Clark <i>(UQ)</i> , Greg Merlo <i>(UQ)</i> , Jaimi Greenslade <i>(RBWH)</i> , Krispin Hajkowicz <i>(RBWH)</i>	A Pilot Randomised Controlled Trial exploring the administration of intravenous antibiotics via stationary intravenous pole and pump versus portable CADD pump to improve patient outcomes and hospital-acquired complications in patients diagnosed with cancer (The Active Trial)
Francesca Boyte	Nicole Gavin, Glen Kennedy, Grant Partridge, Therese Hayes	Will priming intravenous administration sets with monoclonal antibodies reduce the incidence of hypersensitivity reactions? A randomised Controlled Trial
Natasha Roberts	Gary Power, Helene Jacm, Michael Smith, David Wyld, Teresa Brown, Leonie Naumann, Erin Molloy, Suzette Fox, Greg Lewis, Mandy Fairclough, Maree Gier, Kieron Barker, Therese Hayes, Jenni Leutenegger, Nicole Gavin, Elise Button	A co-designed implementation science strategy with clinicians, consumers and researchers to structure improved nurse-led symptom management in medical oncology care
Allanah Watling	Nicole Gavin	Best dosage and route of topical lignocaine to improve patient comfort and tolerability during the insertion of an enteral tube: a systematic review
Mary-Ellen Yarker	Carol Windsor, Jennifer Fox	The role of oncology nurse in shared-decision making for patients undergoing radiation and/or chemotherapy treatment
Rae Blades	Patsy Yates, Raymond Chan, Steven McPhail	A cost-effectiveness analysis of a silicone gel (StrataXRT [®]) for prophylaxis and management of Radiation Induced Skin Injury in head and neck cancer patients
Justine Leach	Raymond Chan, Patsy Yates	Nurse-led Clinics in Cancer Care Services
Robyn Matthews	Raymond Chan, Patsy Yates, Elise Button	End-of-life care education and training essentials of health professionals in the acute care setting
Julie Flynn	Claire Rickard, Samantha Keogh, Li Zhang, Amanda Ullman	Decontamination of central venous catheter needleless connectors

Collaborative Research Activity involving RBWH Research Group / Department

Collaborative Led Researchers	RBWH Researchers and Others <i>(RBWH staff in bold)</i>	Research Project Title
Glen Kennedy, Patsy Yates, Jane Turner, Anthony Smith	Elise Button	A Multi-centre Randomised Controlled Trial of a Nurse-led Survivorship Intervention for EmpoweriNG pAtients with HodGkin's and Non-Hodgkin's Lymphoma after trEatment: (The ENGAGE Trial)
Claire Rickard, Samantha Keogh, Li Zhang, Amanda Ullman	Julie Flynn	Decontamination of central venous catheter needleless connectors
Carol Douglas	Sarah Northfield	The Care Of the Dying Evaluation (CODE) Project: A survey of bereaved persons in an Australian acute care setting
Kathryn Hurree, Midori Nakagaki, Karen Adcock, Karen Whitfield, Carol Douglas, Michael Smith, David Wyld, Glen Kennedy	Nicole Gavin, Elise Button	Educating patients – their way: A co-design approach to develop patient education videos regarding medication administration and supportive cares
Claudia Rutherford, University of Sydney	Natasha Roberts	Systematic Review of Quality of Life in gynaecological cancer
International Society for Quality of Life Proxy Task Force	Natasha Roberts	Proxy reported patient reported outcomes measures
Quality of life office, University of Sydney	Natasha Roberts	Patient reported outcomes in clinical practice
RBWH Diversity Group	Natasha Roberts, Brigid Scanlon	Diversity at RBWH

Research Awards and Achievements

Recipient <i>(RBWH staff in bold)</i>	Award	Event
Nicole Gavin	Best Clinical Practice or Innovation Paper	Cancer Nurses' Society of Australia Congress 2019
Elise Button	Outstanding Thesis Award 2018	Queensland University of Technology
Nicole Gavin	Best Nursing Paper	Blood 2019
Nicole Gavin	Best Nursing Research Award	Herston Symposium 2019

Research Grants

Investigators <i>(RBWH staff in bold)</i>	RBWH Research Groups / Departments	Project Title	Granting Body	Total of funds awarded	Funds used in 2019	Years
Nicole Gavin	Keogh S, Totsika M, Alexander K <i>(QUT)</i>	An evaluation of biofilm formation in standard versus perforated peripheral intravenous catheters (micro-SURF): an in vitro study	Institute of Health and Biomedical Innovation Chronic Disease and Ageing Theme Program Collaboration Scheme 2018	\$10,024	\$10,024	2018-2019
Nicole Gavin	Keogh S, Marquart L, Marsh N, Totsika M and Saxby C <i>(Alliance for Vascular Access Teaching and Research Group)</i>	Standard versus perforated peripheral intravenous catheter (SURF Trial): a pilot randomised controlled trial	Metro North Collaborative Research Grants 2019	\$49,410	\$0	2019-2020
Veronica Percival and Nicole Gavin	Cancer Care Services	Post-dural puncture headache following intrathecal chemotherapy via lumbar puncture (LP). How long should patients remain recumbent?	Hornery Family and Cancer Care Services Fundraising Grant 2018	\$4,800	\$4,800	2018-2019
Kathryn Hurree, Midori Nakagaki, Karen Adcock, Nicole Gavin, Elise Button, Karen Whitfield, Carol Douglas, Michael Smith, David Wyld, Glen Kennedy	Cancer Care Services	Educating patients – their way: A co-design approach to develop patient education videos regarding medication administration and supportive cares	Metro North Hospital and Health Services SEED Innovation 2018	\$82,631	\$82,631	2018-2019
Veronica Percival and Nicole Gavin	Cancer Care Services	Post-dural puncture headache following intrathecal chemotherapy via lumbar puncture (LP). How long should patients remain recumbent?	Royal Brisbane and Women's Hospital Diamond Care Grant 2019	\$40,000	\$20,000	2018-2019
Veronica Percival and Nicole Gavin	Cancer Care Services	Post-dural puncture headache following intrathecal chemotherapy via lumbar puncture (LP). How long should patients remain recumbent?	Rosemary Bryant	\$25,000	\$5,000	2019-2020
Natasha Roberts	Cancer Care Services	Patient Reported Outcomes in a Medical Oncology Setting (iPROMOS)	Royal Brisbane and Women's Hospital Post-Graduate Scholarship 2018	\$36,868	\$36,868	2018-2019
Elise Button, Nicole Gavin, Jason Butler, Michael Smith, Patsy Yates	Cancer Care Services	Exploring the values, preferences, choices for care, and decision making of people with a haematological malignancy, their carer and health care professions (EXPLORE) study	Royal Brisbane and Women's Hospital Diamond Care Grant 2018	\$29,571	\$10,000	2018-2020
Elise Button, Jason Butler, Patsy Yates	Cancer Care Services	Best practice care for people with a haematological malignancy who are at risk of deteriorating and dying (PROMOTE) study	Royal Brisbane and Women's Hospital Post-Doctoral Fellowship 2019	\$50,000	\$25,000	2018-2019

Research Grants (cont)

Investigators <i>(RBWH staff in bold)</i>	RBWH Research Groups / Departments	Project Title	Granting Body	Total of funds awarded	Funds used in 2019	Years
Natasha Roberts	Cancer Care Services	A co-designed implementation science strategy with clinicians, consumers and researchers to structure improved nurse-led symptom management in medical oncology care	Royal Brisbane and Women's Hospital Diamond Care Grant 2019	\$39,027	\$0	2019-2020
Amanda Ullman, Natasha Roberts , Nicole Marsh, Emily Larsen, Claire Rickard	Nursing and Midwifery Research Centre	Consumer-led innovation to implement improvements in central venous access device management: the Vascular Access Project	Royal Brisbane and Women's Hospital Diamond Care Grant 2019	\$38,775	\$0	2019-2020

2019 Research Publications

Journal Articles

1. **Button E, Gavin NC**, Chan RJ, Chambers S, Butler J, & Yates P. (2019). Harnessing the power of clinician judgement. Identifying risk of deteriorating and dying in people with a hematological malignancy: A Delphi. *Journal of Advanced Nursing* 75(1) 161-174
2. **Northfield S, Button E**, Wyld D, **Gavin NC**, Nasato G & Yates P. (2019) 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*
3. Ullman A, Kleidon T, Turner K, Gibson V, Dean A, Cattanach P, Pitt C, Woosley J, Marsh N, **Gavin NC**, Takashima M & Rickard C. (2019) Skin complications associated with pediatric central venous access devices: Prevalence, incidence and risk. *Journal of Pediatric Oncology Nursing*
4. **Button E**, Bolton M, Chan R, Chambers S, Butler J, Yates P. 2019. A palliative care model and conceptual approach suited to clinical malignant haematology. *Palliative Medicine*
5. **Flynn, J**, Larsen, E., Keogh, S., Ullman, A., & Rickard, C. (2019). Methods for microbial needleless connector decontamination: A systematic review and meta-analysis. *American Journal of Infection Control*
6. Larsen E, **Gavin NC**, Marsh N, Rickard C, Runnegar N & Webster J. (2019) A Systematic Review of Central Line-Associated Bloodstream Infection (CLABSI) Diagnostic Reliability and Error. *Infection Control and Hospital Epidemiology*
7. Ullman A, Kleidon T, Turner K, Gibson V, Dean A, Cattanach P, Pitt C, Woosley J, Marsh N, **Gavin NC**, Takashima M & Rickard C. (2019) Skin complications associated with pediatric central venous access devices: Prevalence, incidence and risk. *Journal of Pediatric Oncology Nursing*. (accepted)
8. **Northfield S, Button E**, Wyld D, **Gavin NC**, Nasato G & Yates P. (2019) 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*
9. **Roberts NA**, Mudge A, Alexander K, Wyld D, Janda M (2019). The iPROMOS protocol: a stepped-wedge study to implement routine patient-reported outcomes in a medical oncology outpatient setting. *BMJ Open* 9(2): e027046
10. Chan RJ, Blades R, Jones L, Downer TR, Peet S, **Button E**, Wyld D, McPhail S, Doolan M, Yates P (2019) A single-blind, randomised controlled trial of StrataXRT® – a silicone-based film-forming gel dressing for prophylaxis and management of radiation dermatitis in patient with head and neck cancer. *Radiotherapy and Oncology*
11. Nakagaki M, **Button E**, Keating A, Marsh J, Mitchell C, Birchley A, Kennedy G. (2019). Hyperhydration is Not Necessary for High Dose Melphalan in Stem Cell Transplantation. *Bone Marrow Transplantation*
12. **Button E**, Northfield S, Smith M, Wyld D, Yates P. (2019). How do cancer care services in Australia take care of their patients when they require emergency care? We need more evidence. *Australian Health Review*
13. **Roberts NA**, Mudge A, Alexander K, Wyld D, Janda M (2019). Factors in Randomized Controlled Trials Reported to Impact the Implementation of Patient-Reported Outcome Measures Into Routine Care: Protocol for a Systematic Review. *JMIR Research Protocols*
14. Ortiz E, **Scanlon B**, Mullens A, Durham J. Effectiveness of Interventions for Hepatitis B and C: A Systematic Review of Vaccination, Screening, Health Promotion and Linkage to Care Within Higher Income Countries (2019). *Journal of Community Health* 44, 1-18
15. **Roberts NA**, Mudge A, Alexander K, Wyld D, Janda M (2019). What is needed by staff to implement PROMs into routine oncology care? A qualitative study with the multi-disciplinary team. *European Journal of Cancer Care*.

2019 Conference Presentations – Invited Speaker, Oral and Poster

Invited Speakers

1. **Percival, V.** 'The PLANE Study. HSNZ Queensland Branch Meeting ASM, 23 March 2019
2. **Scanlon, B.** 'Quality of life perceived by patients with high risk haematological malignancy and indicators of potential deterioration – qualitative data.' HSNZ Queensland Branch Meeting ASM, 23 March 2019
3. **Roberts, N.** 'The Rainy Day Project'. Care at End of Life Innovators Workshop 2019. 22 March 2019
4. **Button, E.** 'The Rainy Day Project'. Statewide Forum for Care at the End of Life 2019. May 2019
5. **Gavin NC.** Estimating Prevalence of Impaired Skin surrounding devices in cancer care: the preliminary results of a prospective study. Invited speaker. Pre-congress workshop. Cancer Nurses' Society of Australia 2019

Invited Speakers *(cont)*

6. **Gavin NC.** Improving vascular access complications for people diagnosed with cancer. Invited Speaker. Australia Vascular Access Society Annual Scientific Meeting 2019
7. **Roberts, NA.** Implementing PRO-CTCAE in routine medical oncology outpatient care using iPARIHS. Oral presentation pre-conference workshop. ISOQOL Congress San Diego, 20-23 October 2019
8. **Roberts, NA.** Insights from a PRO measures implementation study co-designed by patients, clinicians and researchers. Symposium oral presentation. ISOQOL Congress San Diego, 20-23 October 2019
9. **Gavin NC,** Marsh N & Flynn J. In the line of duty: improving the performance of PICCs. Research results from an Australian hospital. Invited Speaker. Association for Vascular Access Annual Scientific Meeting October 2019 Las Vegas
10. **Gavin NC.** Developing a registry to improve the outcomes of patient with a CVAD diagnosed with cancer. Invited Speaker. Association for Vascular Access Annual Scientific Meeting October 2019 Las Vegas
11. **Gavin NC.** A new way to look at catheter-related infections in stem cell transplant patients receiving intravenous nutrition. Invited speaker. Transplant Nurses Association October 2019 Brisbane
12. **Gavin NC & Barrie JM.** Hands up for hand hygiene. Invited speaker. Metro North Safety and Quality Forum October 2019 Brisbane
13. **Roberts, NA,** Dhillon, H. What is the participant's experience of an ANZUP clinical trial? Preliminary findings'. Australia and New Zealand Urogenital and Prostate Cancers Clinical Trials Group Annual Scientific Meeting, Brisbane 22-25 July 2019.

Oral Presentations

1. **Button E,** Scanlon B. The physical, psychosocial and spiritual wellbeing of patients with a haematological malignancy who are near the end of life. Oral presentation. Blood 2019, Perth
2. **Button E.** The Rainy Day Care project pilot. Oral presentation. Blood 2019, Perth
3. **Gavin NC.** Developing a research internship. Oral presentation. Cancer Nurses' Society of Australia 2019
4. **Gavin NC.** Peripherally inserted central catheter outcomes polyurethane versus endexo (PIC COMAPRE): feasibility results of a pilot randomised control trial. Oral presentation. Australian Vascular Access Society Annual Scientific Meeting 2019
5. **Gavin NC.** Developing a research internship. Oral presentation. Cancer Nurses' Society of Australia June 2019 Melbourne
6. **Gavin NC.** Hands up for hand hygiene in cancer care. Oral presentation. Cancer Nurses' Society of Australia June 2019 Melbourne
7. **Gavin NC,** Somerville M, Ullman A, Kleidon T, Marsh N, Larsen E, Campbell J, Mihala G & Rickard C. Estimating prevalence of impaired skin surrounding devices in cancer care: the preliminary results of a prospective study (EPISODE). Herston Symposium October 2019 Brisbane
8. Rutherford C, Campbell R, Muller F, **Roberts N,** Tinsely M, Speerin R, Soars L, Butcher A, King M. Enablers and barriers to implementing patient-reported outcome measures (PROMs) in clinical settings: a meta-review of reviews. ISOQOL Congress San Diego, 20-23 October 2019.

Poster Presentations

1. **Percival, V.H.,** Gavin N.C., Curley, C., Leutenegger, J., Partridge, G., Button, E. 'Supporting nursing staff to care for people with a haematological malignancy who receive a lumbar puncture via development of an assessment tool'. BLOOD 2019, Perth, 20-23 October 2019
2. **Roberts, NA,** Alexander, K, Wyld, D, Janda, M. What really happens when Patient-Reported Outcome Measurements (PROMs) are implemented in a busy clinic? Poster presentation. Herston Healthcare Symposium, Brisbane
3. Jacmon, H, **Scanlon, B,** Battersby, C, James, C, RBWH Diversity Working Group
4. **Roberts, NA.** Diversity at RBWH. Poster presentation. Herston Healthcare Symposium, Brisbane
5. **Gavin NC,** Lippiatt R, Hayes T, Northfield S, Somerville M, Larsen E, Marsh N & Rickard C. Improving vascular access care for patients diagnosed with cancer. Cancer Nurses' Society of Australia June 2019 Melbourne
6. **Gavin NC,** Lippiatt R, Hayes T, Northfield S, Somerville M, Larsen E, Marsh N & Rickard C. Improving vascular access care for patients diagnosed with cancer. Herston Symposium October 2019 Brisbane
7. **Roberts, N,** Western, R, Cubitt, A, Keller, J, Ives, A, Wyld, D. 'Patient Understanding of Research in an Oncology Setting'. ACTA International Clinical Trials Conference 2019, Sydney, 2-5 October 2019
8. **Roberts, NA,** Dhillon, H. 'What is the participant experience of a clinical trial? Insights from a qualitative study with GU patients'. 2019 COSA Annual Scientific Meeting, being held from 12th-14th November at the Adelaide Convention Centre
9. **Keating A,** Frederikson P, Williams D, Nakagaki M & Johnstone S, Collaborative communication is key to delivering better patient outcomes in acute bone marrow transplant and haematology patients.' BLOOD 2019, Perth, 20-23 October 2019
10. **Watling A,** Gavin N, Button E. Best dosage and route of topical lignocaine to improve patient comfort and tolerability during the insertion of an enteral tube: a systematic review. BLOOD 2019, Perth, 20-23 October 2019
11. **Scanlon B,** Durham J. Barriers to health access for women during forced displacement: An exploratory study. Poster presentation. European Public Health Conference, Marseilles, France, November 2019.

Details of staff that completed their PhDs in 2019 within your department / research group

Name <i>(RBWH Staff in bold)</i>	Name of Project	Completed Date	University Affiliation
Dr Nicole Claire Gavin	The effect of parenteral nutrition on microbial growth and its influence on catheter-related infection in patients with a central venous access device	February 2019	School of Nursing and Midwifery, Griffith University

MEDICAL ONCOLOGY



Dr David Wyld
Director Medical Oncology
Deputy Director of Clinical Research
Cancer Care Services RBWH

The Cancer Care Services Medical Oncology (MO) Department provides clinical services to the Metro North HHS district through its staff managing patients at RBWH, North Lakes, TPCH and Caboolture. The unit continued to successfully expand its research portfolio in 2019. Below are a few selected highlights from the department in 2019.

An essential part of any academic clinical oncology service is having an active clinical trials unit. The MO department has a comprehensive clinical trials program which continues to be recognised for its conduct of high-quality clinical research, which is a credit to all involved. 2019 was again a very busy year, with an average of 51 actively recruiting studies per month, and 126 studies active in total in 2019. 295 new patients were recruited in 2019 (an 11% increase from 2018), with 879 patients in total on study at some point in 2019, and 687 remaining on study at the end of the year. The number of publications from departmental staff continues to grow each year. The group had almost 50 manuscripts published in 2019, including publications in *The Lancet*, *The Journal of Clinical Oncology*, *Cancer Discovery*, *Annals of Oncology* and the *Journal of Gynaecologic Oncology*. In addition, over 60 abstracts were presented in oral or poster format at national and international meetings.

A major milestone in 2019 was the commencement of patient recruitment for an innovative project evaluating anti-PD1 checkpoint inhibition combined with RANKL blockade in operable NSCLC. This project was developed and is being led by A/Prof Brett Hughes and Dr Elizabeth Ahern from RBWH, in conjunction

with Prof Mark Smyth at QIMR. The project is being conducted at RBWH, TPCH and 2 other Qld sites, with its major translational component being undertaken by M Smyth at QIMR. Probably the major highlight over the last few months of 2019 has been several departmental staff being part of teams that have received significant research grant funding, which will lead to several major new projects within the department in the near future. Staff were part of both recently announced Cancer Council Queensland Accelerating Collaborative Cancer Research (ACCR) Grants (each \$2,000,000 over 4 years) – LUCKISTARS: Lung cancer knowledge in immunogenomics to stratify therapeutic resistance and sensitivity (Brett Hughes, Elizabeth Ahern) and PROMISE: patient-Reported Outcome Measures in cancer care: a hybrid effectiveness-Implementation trial to optimise symptom control and health service experience (David Wyld, Melissa Eastgate). Matthew Burge was part of a MRFF International Clinical Trials Grant (\$981,313), POLEM Trial: Avelumab plus fluoropyrimidine-based chemotherapy as adjuvant treatment for stage III dMMR or POLE exonuclease domain mutant colon cancer: A phase III randomised study. Brett Hughes was part of an MRFF Rapid Applied Research Translation Program grant (\$1,150,000).

Supervised Post-Graduate Research Students

Name <i>(RBWH Staff in bold)</i>	Current Studies <i>(e.g. PhD, Masters etc.)</i> University <i>(duration)</i>	Research Project Title	Supervisors <i>(RBWH staff in bold)</i>
Ali Dulfikar	PhD QUT	Pilot feasibility study of exercise in grade II, III and IV glioma while receiving radiation therapy with or without chemotherapy	Zarnie Lwin , Fiona Naumann, Mark Pinkham, Elizabeth Pinkham, Gabriel Siqueira Trajano
Elizabeth Ahern	PhD UQ 2015	Targeting RANK/RANKL in combination immunotherapy using murine and translational models of melanoma, prostate and other solid organ malignancies	Mark Smyth, Michele Teng, David Wyld
Natasha Roberts	PhD QUT 2016-2019	Patient Reported Outcomes in a Medical Oncology Setting	Monika Janda, Kim Alexander, David Wyld
Rahul Ladwa	MPhil UQ 2017	Predictors of dosimetry and response to peptide receptor radionuclide therapy	David Wyld , Stephen Rose, Nicholas Dowson
Darshit Thaker	MPhil UQ 2017	Implementation of Comprehensive Geriatric assessment (CGA) for patients older than 70 years in medical oncology clinic to facilitate decision making and provision of supportive management	David Wyld, Sunil Lakhani

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

Name <i>(RBWH Staff in bold)</i>	Type of Position	FTE	Funding Source <i>(operational/ external/in-kind)</i>	Research Program	Affiliated University/ies
Dr Anna Kuchel	Research Fellow			Medical Oncology	Queensland Health
Dr Elizabeth Ahern	Research Fellow			Medical Oncology	Queensland Health
Annette Cubitt	Manager, Clinical Trials Unit			Clinical Trials Unit Medical Oncology	Queensland Health
Jenny Campbell	Clinical Trial Coordinator			Clinical Trials Unit Medical Oncology	Queensland Health
Amy Ives	Clinical Trial Coordinator			Clinical Trials Unit Medical Oncology	Queensland Health
Andrea McKenzie	Clinical Trial Coordinator			Clinical Trials Unit Medical Oncology	Queensland Health
Wendy Pritchard	Clinical Trial Coordinator			Clinical Trials Unit Medical Oncology	Queensland Health
Megan Ward	Clinical Trial Coordinator			Clinical Trials Unit Medical Oncology	Queensland Health
Natasha Roberts	Clinical Trial Coordinator			Clinical Trials Unit Medical Oncology	Queensland Health
Gel Bolanos	Clinical Trial Coordinator			Clinical Trials Unit Medical Oncology	Queensland Health
Diana Lewis	Clinical Trial Coordinator			Clinical Trials Unit Medical Oncology	Queensland Health
Julie McClelland	Clinical Trial Coordinator			Clinical Trials Unit Medical Oncology	Queensland Health
Jasmine Brady	Clinical Trial Coordinator			Clinical Trials Unit Medical Oncology	Queensland Health
Krystal Perera	Clinical Trial Coordinator			Clinical Trials Unit Medical Oncology	Queensland Health
Lourdes Pamposa	Clinical Trial Coordinator			Clinical Trials Unit Medical Oncology	Queensland Health
Sarah McGuckin	Clinical Trial Coordinator			Clinical Trials Unit Medical Oncology	Queensland Health
Michelle Cybulski	Clinical Trial Coordinator			Clinical Trials Unit Medical Oncology	Queensland Health
Jade Allan	Clinical Trial Coordinator			Clinical Trials Unit Medical Oncology	Queensland Health
Erin Purdon	Clinical Trial Coordinator			Clinical Trials Unit Medical Oncology	Queensland Health
Andrea Junghans	Clinical Trial Coordinator			Clinical Trials Unit Medical Oncology	Queensland Health
Jennifer Lonton	Research Development Officer			Clinical Trials Unit Medical Oncology	Queensland Health
Danni Church	Research Development Officer			Clinical Trials Unit Medical Oncology	Queensland Health
Denise Flynn	Research Administration Officer			Clinical Trials Unit Medical Oncology	Queensland Health

Current RBWH Research Group / Department Led Research Activity

RBWH Research Group / Department Led Researchers <i>(RBWH staff in bold)</i>	Collaborative Researchers and Others <i>(RBWH staff in bold)</i>	Research Project Title
David Wyld, Matthew Burge	Rachel Neale, Vanessa Beesley	PRO-NET: Patient reported outcomes in people with neuroendocrine tumours
Natasha Roberts, David Wyld	Monika Janda , Kim Alexander	Patient Report Outcomes (PROs) in a medical oncology setting: A low risk project to identify staff perceptions about the use of PRO data in a clinical setting
Zarnie Lwin	Alex Broom <i>(UNSW)</i>	Cultural biographies, medical knowledges: A sociological study at the intersection of cancer and culture
Matthew Burge	Melissa Eastgate, David Wyld, Shu Lee , Euan Walpole <i>(PAH)</i>	Prospective evaluation of FOLFIRINOX for metastatic or locally advanced Pancreatic Cancer
David Wyld	Louisa Gordon, John Leyden, Kate Wakelin, Michael Michael, Nick Pavlakis	F-NET Project: Financial Outcomes in people with Neuro-Endocrine Tumours
Matthew Burge	Paul Thomas, David Wyld, Melissa Eastgate , Stephen Rose, Nick O'Rourke, Davis Cavallucci, Richard Bryant	Imaging the CXCR-4 Chemokine receptor with a novel PET tracer in pancreatic cancer
Matthew Burge	Paul Thomas, Andrew Stevenson, David Wyld (CCS), Melissa Eastgate , Stephen Rose, David Clark, Craig Harris, Damien Petersen, David Taylor, Carina Chow, Paul Tesar <i>(DMI)</i> , Michelle Grogan	A pilot study of CXCR-4 PET scanning in operable rectal cancer
David Wyld	Matthew Burge, Raymond Chan , Jane Turner, Patsy Yates, Melissa Eastgate , Rachael Neale, Vanessa Beesley	PREPARES: Patients and Relatives affected by Pancreatic cancer: Referral, Education and Support feasibility trial
David Wyld	Julie Moore, Mark Wan	Neuroendocrine Tumours: Epidemiologic trends in Queensland
Brett Hughes	Elizabeth Ahern , Bill Dougall, Mark Smyth <i>(PAH)</i>	Pharmacodynamics of Pre-Operative PD1 Checkpoint Blockade and Receptor Activator of NF-κB Ligand (RANKL) Inhibition in Non-Small Cell Lung Cancer (NSCLC) – a phase 1B/2 trial. POPCORN
Natasha Roberts <i>(Cancer Care Services/Queensland University of Technology)</i>	Monika Janda , Kim Alexander, David Wyld	Patient Reported Outcomes in the Medical Oncology Setting (iPROMOS)
Melissa Eastgate	Anna Kuchel, David Wyld	Medical Oncology Clinical Activity Review
David Wyld	David Chan (Sydney), S Singh, A Thawer, C Fingrut, R Yelamanchila (Canada)	Understanding the Barriers to the Development of a Shared Care Model for the Treatment of Patients with Neuroendocrine Tumours (NETs): Optimization of care between NET Speciality Centres and General/Local/Community Oncologist
Melissa Eastgate	Anna Kuchel	Financial planning concerns in patients with advanced melanoma – a research study into patient and clinician perspectives
David Wyld	Julie Moore, Nancy Tran, Michael Wyld	Neuroendocrine Neoplasms in the Paediatric, Adolescent and Young Adult Population in Queensland, Australia
David Wyld	Julie Moore, Nancy Tran, Ben Lawrence, Kate Parker, Sharon Pattison	Neuroendocrine neoplasms in the paediatric adolescent and young adult population – comparing New Zealand and Queensland Australia
Natasha Roberts	Haryana Dhillon, Phillip Parente, Craig Gedye, Australia New Zealand Urogenital and Prostate Cancer Trials Group	Patient Experience of Participating in a Clinical Trial
Natasha Roberts <i>(Cancer Care Services/Queensland University of Technology)</i>	Medical Oncology, Radiation Oncology, Haematology Cancer Care Services, RBWH	Poster Project: A study to describe oncology patient perceptions of research
Melissa Eastgate	Geoffrey Bryant, Mathew Burge, Darshit Thaker, David Wyld	Colorectal cancer patient reported outcomes: putting theory into practice

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

RBWH Research Group / Department Led Researchers <i>(RBWH staff in bold)</i>	Collaborative Researchers and Others <i>(RBWH staff in bold)</i>	Research Project Title
Brett Hughes <i>(Cancer Care Services)</i> , Elizabeth Ahern <i>(Cancer Care Services/Queensland Institute of Medical Research Berghofer)</i>	Martin Batstone, Mark Smyth and Bill Dougall <i>(QIMR)</i>	Expression of novel immune markers in mucosal head and neck squamous cell carcinoma (HNSCC) specimens
Melissa Eastgate, Elizabeth Ahern <i>(Cancer Care Services/Queensland Institute of Medical Research Berghofer)</i> Anna Kuchel	Ailin Lepetier, Jason Madore, Mark Smyth <i>(QIMR)</i>	Multiplex immunofluorescence assessment of melanoma biopsies and response to immunotherapy
Brett Hughes, Elizabeth Ahern <i>(Cancer Care Services/Queensland Institute of Medical Research Berghofer)</i>	Martin Batstone, Mark Smyth and Bill Dougall <i>(QIMR)</i>	Immune Biomarker Evaluation in Oral Mucosal Squamous Cell Carcinoma: a prospective tissue collection
Clare Senko, Brett Hughes, Zarnie Lwin	Gary Pratt , Kwun Fong, Julie Moore	Evaluating the prognostic significance of significant weight loss in patients with stage III non-small cell lung cancer undergoing definitive chemoradiation
Matthew Burge	David Wyld , David Pattison, Fiona Paxton-Hall, Kathy You	Outcome and toxicity of salvage therapy with 177 Lu-dotatate in patients with metastatic neuroendocrine tumours
David Wyld	Julie Moore, Nathan Dunn, Nancy Tran	Small Intestinal Neuroendocrine neoplasms in Qld – 2001 – 2015. Stage at diagnosis and survival
Zarnie Lwin	Alexander Broom <i>(UNSW)</i> , Claire Wakefield, Emma Kirby <i>(UNSW)</i> , Barbara Prainsack, Mustafa Khasraw, Katherine Kenny, Stephanie Raymond	Precision and the Person: A sociological study of therapeutic innovation in cancer care
Zarnie Lwin	Emma Kirby <i>(UNSW)</i>	Informal care and living with glioma
Melissa Eastgate	Rosalind Jeffrey <i>(Neurosurgery)</i> , Margaret Cummings <i>(Pathology)</i> , Elizabeth Ahern, Anna Kuchel , Shu Lee <i>(Medical Oncology Ipswich)</i> , Michael Colditz <i>(Neurosurgery)</i>	Clinicopathologic feature predicting survival after brain metastasectomy in melanoma
Wessling C, Gavin N	Russell E, Glynn T, Eastgate M, Hajkovicz K, Klages P, Leutenegger J , Sandler C, Clark B, Hutchinson E, Sutherland A	A Randomised Controlled Trial exploring the administration of intravenous antibiotics and fluids via intravenous pole and pump versus portable CADD pump to improve mobility in patients diagnosed with cancer (The Active Trial)
Elizabeth Ahern	Brett Hughes, Zarnie Lwin	Exploring the rate of hospital admissions due to immune therapy toxicities in two tertiary cancer centres

Collaborative Research Activity involving RBWH Research Group / Department

Collaborative Led Researchers	RBWH Researchers and Others <i>(RBWH staff n bold)</i>	Research Project Title
Australasian Gastrointestinal Trials Group	Matthew Burge <i>(Cancer Care Services)</i>	INTEGRATE II A Randomised Phase III Double Blind Placebo Controlled Study of regorafenib in Refractory Advanced GastroOesophageal Cancer
Australasian Gastrointestinal Trials Group	Matthew Burge <i>(Cancer Care Services)</i>	ACTICCA-1 study: Adjuvant Chemotherapy With Gemcitabine and Cisplatin Compared to Observation After Curative Intent Resection of Cholangiocarcinoma and Muscle Invasive Gall Bladder Carcinoma (ACTICCA-1 Trial)
Australasian Gastrointestinal Trials Group	David Wyld <i>(Cancer Care Services)</i>	CONTROL NETS: Phase II multi-arm, randomised open label trial of Lutetium-177 Octreotate peptide receptor radionuclide therapy, capecitabine/temozolamide chemotherapy, or the combination in the first – or second-line treatment of low to intermediate grade gastroenteropancreatic neuroendocrine tumours
Walter and Eliza Hall Institute, Colorectal Translational Oncology Group	Matthew Burge <i>(Cancer Care Services)</i>	ctDNA in Pancreatic Cancer
Australasian Gastrointestinal Trials Group	Matthew Burge <i>(Cancer Care Services)</i>	DOCTOR: A Randomised Phase II Trial of Pre-operative Cisplatin, 5 Fluorouracil and Docetaxel or Cisplatin, 5 Fluorouracil, Docetaxel plus Radiotherapy based on poor early response to standard chemotherapy for resectable adenocarcinoma of the oesophagus and/or OG Junction
Ludwig Institute for Cancer Research	Matthew Burge <i>(Cancer Care Services)</i>	Circulating Tumour DNA as a Sensitive and Specific Marker of Response to Therapy and of Occult Disease in Colorectal Cancer – for resectable CRC liver mets pts
Walter and Eliza Hall Institute	Matthew Burge <i>(Cancer Care Services)</i>	DYNAMIC: Circulating Tumour DNA Analysis Informing Adjuvant Chemotherapy in Stage II Colon Cancer
Walter and Eliza Hall Institute	Matthew Burge <i>(Cancer Care Services)</i>	Evaluation of temporal dynamics of RAS Mutation emergence in Cell Free DNA (cfDNA) in response to first-line cetuximab anti-EGFR therapy in Patients with Metastatic Colorectal Cancer
Centre for Medical Psychology and Evidence Based Decision Making	Matthew Burge <i>(Cancer Care Services)</i>	CHALLENGE: A Phase III study of the impact of a Physical Activity program on Disease-Free Survival in patients with high risk Stage II or Stage III Colon Cancer: a randomised controlled trial (CO.21)
Australasian Gastrointestinal Trials Group/National Cancer Centre, Singapore	Melissa Eastgate <i>(Cancer Care Services)</i>	ASCOLT: Aspirin for Dukes C and high risk Dukes B Colorectal Cancers – an international, multi-centre, double blind, randomised placebo controlled Phase III trial (AGITG)
Walter and Eliza Hall Institute	Matthew Burge <i>(Cancer Care Services)</i>	ctDNA as a Marker of Complete Pathological Response and Long Term Outcome for Locally Advanced Rectal Cancer Treated with Pre-operative Chemoradiotherapy
Ludwig Institute for Cancer Research	Matthew Burge <i>(Cancer Care Services)</i>	Circulating Tumour DNA as a Marker of Occult Disease in Stage II Colorectal Cancer and Response to Therapy in Metastatic Colorectal Cancer
Australasian Gastrointestinal Trials Group	Matthew Burge <i>(Cancer Care Services)</i>	MODULATE: Modulation of the tumour microenvironment using either vascular disrupting agents or STAT3 inhibition in order to synergise with PD1 inhibition in microsatellite stable, refractory colorectal cancer. (AGITG)
Australasian Gastrointestinal Trials Group/ Walter and Eliza Hall Institute	Matthew Burge <i>(Cancer Care Services)</i>	DYNAMIC-III: Circulating Tumour DNA Analysis Informing Adjuvant Chemotherapy in Stage III Colon Cancer: A Multicentre Phase II/III Randomised Controlled Study (AGITG, WEHI)
Australasian Gastrointestinal Trials Group/ Walter and Eliza Hall Institute	Matthew Burge <i>(Cancer Care Services)</i>	DYNAMIC-Pancreas: Circulating Tumour DNA Analysis Informing Adjuvant Chemotherapy in Early Stage Pancreatic Cancer: A Multicentre Randomised Study (WEHI, AGITG)
Australia New Zealand Gynaecological Oncology Group	Jeffrey Goh <i>(Cancer Care Services)</i>	VELIA (M13-694) A Phase 3 Placebo Controlled Study of Carboplatin/Paclitaxel With or Without Concurrent and continuous Maintenance Veliparib in Subjects with Previously Untreated Stages III or IV High Grade Serous Epitheal Ovarian, Fallopian Tube, or Primary Peritoneal Cancer
Australia New Zealand Gynaecological Oncology Group	Alison Hadley <i>(Cancer Care Services)</i>	OUTBACK - A PHASE III trial of adjuvant chemotherapy following chemoradiation as primary treatment for locally advanced cervical cancer compared to chemoradiation alone
Australia New Zealand Gynaecological Oncology Group	Jeff Goh <i>(Cancer Care Services)</i>	PARAGON: A study to assess the activity of anastrozole, an aromatase inhibitor, in women with oestrogen receptor and/or progesterone receptor positive (ER/PR+ve) and therefore potentially hormone responsive recurrent or metastatic gynaecological cancers

Collaborative Research Activity involving RBWH Research Group / Department (cont)

Collaborative Led Researchers	RBWH Researchers and Others <i>(RBWH staff in bold)</i>	Research Project Title
Australia New Zealand Gynaecological Oncology Group	Jeff Goh <i>(Cancer Care Services)</i>	OVAR 2.21: A prospective randomized Phase III trial of carboplatin/ gemcitabine/ bevacizumab vs. carboplatin/pegylated liposomal doxorubicin/ bevacizumab in patients with platinum-sensitive recurrent ovarian cancer
Australia New Zealand Gynaecological Oncology Group	Jeff Goh <i>(Cancer Care Services)</i>	ICON 8: an international trial comparing weekly chemotherapy with 3 weekly chemotherapy for women with ovarian cancer, fallopian tube cancer or primary peritoneal cancer
Australia New Zealand Urogenital and Prostate Cancer Trials Group	David Wyld <i>(Cancer Care Services)</i>	Phase III BEP Trial: A randomised phase 3 trial of accelerated versus standard BEP chemotherapy for participants with intermediate and poor-risk advanced germ cell tumours
Australia New Zealand Urogenital and Prostate Cancer Trials Group	Aneta Suder <i>(Cancer Care Services)</i>	ENZAMET Trial: A randomised phase 3 trial of enzalutamide in first line androgen deprivation therapy for metastatic prostate cancer
Cooperative Trials Group for Neuro-oncology	Zarnie Lwin <i>(Cancer Care Services)</i>	ACED: Randomised phase II study of acetazolamide plus dexamethasone versus dexamethasone alone for management of cerebral oedema in recurrent or progressive high grade gliomas
Cooperative Trials Group for Neuro-oncology	Zarnie Lwin <i>(Cancer Care Services)</i>	VERTU - Veliparib, Radiotherapy and Temozolomide trial in Unmethylated MGMT Glioblastoma: A Randomised Phase II study of veliparib + radiotherapy (RT) with adjuvant temozolomide (TMZ) + veliparib versus standard RT + TMZ followed by TMZ in newly diagnosed glioblastoma (GBM) with unmethylated O (6)-methylguanine-DNA methyltransferase
Cooperative Trials Group for Neuro-oncology	Po-Ling Inglis <i>(Cancer Care Services)</i>	CATNON: Phase III trial comparing no adjuvant chemotherapy versus adjuvant therapy until progression for anaplastic glioma without 1p/19q loss. An EORTC/NCI-C/RTOG/MRC/HUB/ intergroup study
Australia New Zealand Breast Cancer Trials Group	Michelle Nottage <i>(Cancer Care Services)</i>	PALbociclib CoLLaborative Adjuvant Study: A Randomized Phase III Trial of Palbociclib With Standard Adjuvant Endocrine Therapy Versus Standard Adjuvant Endocrine Therapy Alone for Hormone Receptor Positive (HR+) / Human Epidermal Growth Factor Receptor 2 (HER2)-Negative Early Breast Cancer. PALLAS
Australia New Zealand Breast Cancer Trials Group	Po-Ling Inglis <i>(Cancer Care Services)</i>	Penelope B: Phase III study evaluating palbociclib (PD-0332991), a Cyclin-Dependent Kinase (CDK) 4/6 Inhibitor in patients with hormone-receptor-positive, HER2-normal primary breast cancer with high relapse risk after neoadjuvant chemotherapy
Kathleen Houston, Sunshine Coast Oncology Research Group	Michelle Nottage <i>(Cancer Care Services)</i>	TAPS: Gabapentin for taxane acute pain syndrome – a phase III randomised, placebo-controlled, crossover trial
Australia New Zealand Breast Cancer Trials Group/Breast International Group	Michelle Nottage <i>(Cancer Care Services)</i>	TEXT-Bone: A substudy of the TEXT trial to evaluate serial bone markers for bone remodeling, serial growth factors, and bone mineral density
Australia New Zealand Breast Cancer Trials Group/Breast International Group	Michelle Nottage <i>(Cancer Care Services)</i>	TEXT: A Phase III Trial Evaluating the Role of Exemestane plus GnRH analogue as Adjuvant Therapy for premenopausal women with endocrine responsive breast cancer
Australia New Zealand Breast Cancer Trials Group/Breast International Group	Michelle Nottage <i>(Cancer Care Services)</i>	An International multi-centre study of tamoxifen vs. Anastrozole in postmenopausal women with hormone sensitive ductal carcinoma in situ (DCIS) IBIS II
Australia New Zealand Breast Cancer Trials Group/ECOG-ACrIN	Po-Ling Inglis <i>(Cancer Care Services)</i>	TAILORx Program for the Assessment of Clinical Cancer Tests (PACCT-1): Trial Assigning Individualized Options for Treatment: The TAILORx Trial
Australia New Zealand Breast Cancer Trials Group/Breast International Group	Michelle Nottage <i>(Cancer Care Services)</i>	Suppression of Ovarian Function Trial (SOFT) A Phase III Trial Evaluating the Role of Ovarian function Suppression and the Role of Exemestane as Adjuvant therapies for premenopausal women with Endocrine responsive breast cancer
Walter and Eliza Hall Institute	Matthew Burge <i>(Cancer Care Services)</i>	Pancreatic cancer: Understanding Routine Practice and Lifting End results (PURPLE) A Prospective Pancreatic Cancer clinical registry
Australia New Zealand Urogenital and Prostate Cancer Trials Group	Jeffrey Goh <i>(Cancer Care Services)</i>	KEYPAD: Proposed phase 2 trial of pembrolizumab and denosumab in advanced clear-cell renal cell carcinoma (ccRCC) progressing after a VEGF-TKI
Australia New Zealand Urogenital and Prostate Cancer Trials Group	Jeffrey Goh <i>(Cancer Care Services)</i>	UNISoN – anzUp Nivo->ipi+Nivo Sequential Non-clear cell - Proposed Phase II Sequential Cohort Trial Of Single Agent Nivolumab, Then Combination Ipilimumab + Nivolumab In Metastatic Or Unresectable Non-Clear Cell Renal
Australia New Zealand Urogenital and Prostate Cancer Trials Group	Jeffrey Goh <i>(Cancer Care Services)</i>	TheraP: A randomised phase 2 trial of 177 Lu-PSMA617 theranostic versus cabazitaxel in men with progressive metastatic castration resistant prostate cancer

Collaborative Research Activity involving RBWH Research Group / Department (cont)

Collaborative Led Researchers	RBWH Researchers and Others <i>(RBWH staff in bold)</i>	Research Project Title
Australia New Zealand Urogenital and Prostate Cancer Trials Group	Natasha Roberts <i>(Cancer Care Services)</i>	The Patient Experience of Participating in a Clinical Trial
Cooperative Trials Group for Neuro-oncology	Zarnie Lwin <i>(Cancer Care Services)</i>	NUTMEG: A Randomized Phase II Study of Nivolumab and TeMozolomide vs Temozolomide in newly diagnosed Elderly Glioblastoma
Australasian Gastrointestinal Trials Group	Matthew Burge <i>(Cancer Care Services)</i>	LIBERATE – phase II study evaluating liquid biopsies to profile metastatic colorectal cancer
Australasian Gastrointestinal Trials Group	Matthew Burge <i>(Cancer Care Services)</i>	A randomised phase 2 study of Panitumumab monotherapy versus fluoropyrimidine and bevacizumab as first line therapy for RAS wild type metastatic colorectal cancer. (MONARCC study)
Australia New Zealand Gynaecological Oncology Group	Jeffrey Goh <i>(Cancer Care Services)</i>	Phase II clinical trial of the PARP inhibitor, olaparib, in HR-deficient metastatic breast and relapsed ovarian cancer in patients without germline mutations in BRCA1 and BRCA2: The EMBRACE study
Australia New Zealand Gynaecological Oncology Group/United Kingdom Medical Research Council	Jeffrey Goh <i>(Cancer Care Services)</i>	ICON 9: to assess the efficacy, safety and tolerability of maintenance cediranib in combination with olaparib therapy compared to single agent cediranib maintenance in women with relapsed platinum sensitive ovarian, fallopian tube or primary peritoneal cancer. (ANZGOG/UK MRC)
Australia New Zealand Gynaecological Oncology Group	Jeffrey Goh <i>(Cancer Care Services)</i>	iPRIME - A phase II study of durvalumab and tremilumab in combination with carboplatin and paclitaxel, as neoadjuvant treatment for newly diagnosed, advanced high grade serous ovarian cancer (ANZGOG)
Australia and New Zealand Melanoma Trials Group	Melissa Eastgate <i>(Cancer Care Services)</i>	A Phase Ib/II Trial of Ipilimumab-Nivolumab-Denosumab and Nivolumab-Denosumab in Patients with Unresectable Stage III and IV Melanoma. (ANZMTG 01.15.) CHARLI
Australia and New Zealand Melanoma Trials Group	Melissa Eastgate <i>(Cancer Care Services)</i>	A randomised phase III study of duration of Anti-PD-1 therapy in metastatic melanoma (STOP-GAP) (ANZMTG)
Australian Lung Cancer Trials Group	Brett Hughes <i>(Cancer Care Services)</i>	NIVORAD - A randomised phase 2 trial of nivolumab and stereotactic ablative body radiotherapy in advanced non-small cell lung cancer, progressing after first or second line chemotherapy.
Australian Lung Cancer Trials Group/ European Thoracic Oncology Platform	Brett Hughes <i>(Cancer Care Services)</i>	STIMULI: Small cell lung carcinoma Trial with nivolumab and Ipili-MUab in Limited disease. A randomised open-label phase II trial of consolidation with nivolumab and ipilimumab in limited-stage SCLC after chemo-radiotherapy. (ALTG, ETOP)
Melbourne Health	Michelle Nottage <i>(Cancer Care Services)</i>	NOMINATOR: GENOMIC MATCHING TREATMENT FOR RARE CANCERS Feasibility of performing genomic testing of rare cancers to match the cancer to treatment
Australia New Zealand Urogenital and Prostate Cancer Trials Group	Jeffrey Goh <i>(Cancer Care Services)</i>	UNICAB: A phase II trial of single agent cabozantinib in patients with locally advanced or metastatic non-clear cell renal cell carcinoma post immunotherapy or who are unsuitable for immunotherapy (ANZUP 1802)
Australia New Zealand Gynaecological Oncology Group	Jeffrey Goh <i>(Cancer Care Services)</i>	MOCCA – A Multicentre Phase II randomised trial of MEDI4736 versus physician's choice chemotherapy in recurrent ovarian clear cell adenocarcinomas
Bryan Day QIMR Berghofer Medical Research Institute	Po Ling Inglis , <i>(Cancer Care Services)</i> , Rosalind Jeffree (Neurosurgery)	Novel Therapies for Brain Cancer
Rebecca Mercieca-Bebber <i>(University of Sydney)</i>	Natasha Roberts <i>(Cancer Care Services)/Queensland University of Technology)</i>	Quality of life end-points in clinical trials
Quan Tran, <i>(Cancer Care Services, The Prince Charles Hospital)</i>	Brett Hughes, Zarnie Lwin <i>(Cancer Care Services)</i> , David Smith, Andrew Schmidt <i>(The Prince Charles Hospital)</i>	Identifying perceived barriers to physical activity in patients with lung cancer at two Brisbane-based institutions
Kate Roberts <i>(Princess Alexandra Hospital)</i> , Ken O'Byrne <i>(Queensland University of Technology)</i>	Brett Hughes, Zarnie Lwin <i>(Cancer Care Services)</i>	A multi-institutional retrospective audit of patients with metastatic malignancy treated with nivolumab through the Open Access Scheme at the Princess Alexandra Hospital, the Royal Brisbane and Womens' Hospital, and The Prince Charles Hospital

Collaborative Research Activity involving RBWH Research Group / Department (cont)

Collaborative Led Researchers	RBWH Researchers and Others <i>(RBWH staff in bold)</i>	Research Project Title
Lisa Guccione (PMCC), Penelope Schofield (Swinburne University), Michael Michael (PMCC), Mustafa Khasraw (RNSH), Timothy Price (TQEH), Nick Pavlakis (RNSH), Megan Rogers (PMCC), Karla Gough (PMCC), Grace Kong (PMCC), Simone Leyden (Unicorn Foundation), John Leyden (Unicorn Foundation)	David Wyld (Cancer Care Services)	DEFINING NETS – Defining the supportive care needs and psychological morbidity of patients with Functioning versus Non-Functioning Neuroendocrine Tumours (NETs)
Manoj Bhatt (Nuc Med)	David Wyld, Matthew Burge , (Cancer Care Services), Rahul Ladwa (PAH) Peter Garcia, David Pattison, Kevin Lee, Samuel Kyle, Nicholas Dowson, Jye Smith (Nuclear Medicine), Steven Goodman, Stephen Rose (CSIRO)	Pilot project to assess liver metastases by comparing novel, dynamic and static functional imaging, and also morphological imaging with standard of care in WHO Grade I and Grade II Neuroendocrine Tumour (NET)
Claudia Rutherford (Quality of Life Office, University of Sydney)	Natasha Roberts (Cancer Care Services)/Queensland University of Technology	Systematic Review of Quality of Life Measures
University of New South Wales	David Wyld (Cancer Care Services), Robert Henderson (Neurology)	Peripheral Neuropathy in Chemotherapy-treated Patients: Predictors, Assessment strategies and Functional Outcomes IN FOCUS Study (Identifying Neurological and Functional Outcomes in Cancer Survivors Study)
University of New South Wales	David Wyld (Cancer Care Services), Robert Henderson (Neurology)	IN FOCUS: The use of duloxetine for the treatment of chemotherapy-induced peripheral neuropathy
Olivia Newton-John Cancer Research Institute	Po-Ling Inglis (Cancer Care Services)	A phase I safety and bioimaging trial of KB004 in patients with glioblastoma
International Society for Quality of Life	Natasha Roberts (Cancer Care Services)	Proxy reported patient reported outcomes measures
Walter and Eliza Hall Institute	Zarnie Lwin (Cancer Care Services)	EX-TEM: Phase III Trial of Extended Temozolomide in Newly Diagnosed Glioblastoma (WEHI)
Amanda Love (Endocrinology), Marianne Elston (NZ), Richard Carrol (NZ), Eva Segelov (Monash)	David Wyld (Cancer Care Services)	Assessment of hypopituitarism rates following peptide receptor radionuclide therapy for neuroendocrine tumours
John Clouston, Roger Bain (Medical Imaging)	Melissa Eastgate (Cancer Care Services)	The Metro North Interventional Oncology database: a prospective observational cohort study examining outcomes for interventional oncology procedures
Sunil Lakhani (University of Queensland) Amy Reed (UQCCR), Christopher Pyke (Mater), Cameron Snell (Mater), Nicole McCarthy (Wesley), Ken O'Byrne (PAH), Valentine Hyland (Pathology), Owen Ung (Surgery), Natasha Woodward (Mater), Euan Walpole (PAH), Peter Simpson (UQ), Stephen Rose (CSIRO), Fares Al-Ejeh (QIMR)	Po-Ling Inglis, Ben Green (Cancer Care Services)	High risk breast cancer genomic sequencing project platform Queensland wide
Claudia Rutherford, Madeleine King, (Quality of life office, University of Sydney)	Natasha Roberts (Cancer Care Services)	Patient reported outcomes in clinical practice
Patsy Yates (Palliative Care)	David Wyld (Cancer Care Services), Kimberly Alexander, Christine Miskowski, Raymond Chan, Alexandra McCarthy, Steven McPhail, Helen Skerman	A sequential multiple assignment randomised trial (SMART) of nursing interventions to reduce pain associated with chemotherapy induced peripheral neuropathy

Collaborative Research Activity involving RBWH Research Group / Department (cont)

Collaborative Led Researchers	RBWH Researchers and Others <i>(RBWH staff in bold)</i>	Research Project Title
Teresa Brown <i>(Nutrition and Dietetics)</i>	Judy Bauer <i>(University of Queensland)</i> , Brett Hughes <i>(Cancer Care Services)</i> Elizabeth Ahern <i>(Cancer Care Services)</i>	“Sarcopenia in HNSCC patients undergoing definitive concurrent CRT and associations with clinical outcomes”
Rahul Ladwa <i>(PAH)</i>	David Wyld, Matthew Burge <i>(Cancer Care Services)</i> , David Pattison <i>(Nuc Med)</i>	Assessing response to Peptide Receptor Radionuclide Therapy in Neuroendocrine Tumours: Case series of “pseudoprogression”
Breast Cancer Trials, Austrian Breast and Colorectal Cancer Study Group <i>(ABCSCG)</i>	Michelle Nottage, Po-Ling Inglis <i>(Cancer Care Services)</i>	BRCA-P. A Randomized, Double-Blind, Placebo-Controlled, Multi-Center, International Phase 3 Study to determine the Preventive Effect of Denosumab on Breast Cancer in Women carrying a BRCA1 Germline Mutation
Hao-Wen Sim, Helen Wheeler, Kathryn Field, David Espinoza, Michael Buckland, Kimberly Kaufman	Zarnie Lwin, Benjamin Chua <i>(Cancer Care Services)</i>	PICCOG: PARP and Immune Checkpoint inhibitor COmbination for relapsed IDH-mutant high-grade Glioma

Research Awards and Achievements

Recipient <i>(RBWH staff in bold)</i>	Award	Event
Anna Kuchel	Best Abstract Presentation	Cancer Care Research Retreat, Cancer Care Services, RBWH

Research Grants

Investigators <i>(RBWH staff in bold)</i>	RBWH Research Groups / Departments	Project Title	Granting Body	Total of funds awarded	Funds used in 2019	Years
Patsy Yates , Kimberly Alexander, Christine Miaskowski, Raymond Chan, Alexandra McCarthy, Steven McPhail, David Wyld , Helen Skerman	Medical Oncology	A sequential multiple assignment randomised trial (SMART) of nursing interventions to reduce pain associated with chemotherapy induced peripheral neuropathy	NHMRC APP1129532	\$713,418	\$178,355	2017-2020
Matthew Burge	Medical Oncology	MONARCC Study: A randomised Phase 2 study of panitumumab monotherapy versus panitumumab and 5 Fluorouracil as first line treatment for RAS and RAF wild type metastatic colorectal cancer (mCRC)	Australian Gastro-Intestinal Group Innovation Fund	\$100,000	\$33,333	2017-2019
Medical Oncology Clinical Trials Unit	Medical Oncology	Clinical Trials Data Management Grant	Queensland Cancer Fund	\$77,000	\$77,000	2019
Brett Hughes, Elizabeth Ahern , Bill Dougall, Mark Smyth	Medical Oncology	Pre-operative evaluation of anti-PD1 checkpoint inhibition (Nivolumab) with RANKL blockage (Denosumab) in patients with operable stage I-IIIa NSCLC	Amgen	\$940,370 (697,000 US\$)	\$470,185	2018-2019
Geoff Bryant, Melissa Eastgate, David Wyld, Matt Burge	Medical Oncology	Structured symptom reporting for patients with colorectal cancer undergoing chemotherapy	Metro North Hospital and Health Service SEED Grant	\$126,770	\$63,385	2018-2019

Research Grants *(cont)*

Investigators <i>(RBWH staff in bold)</i>	RBWH Research Groups / Departments	Project Title	Granting Body	Total of funds awarded	Funds used in 2019	Years
Kwun Fong, Andreas Moeller, Rayleen Bowman, Zarnie Lwin, Brett Hughes	Medical Oncology	Novel biomarkers for lung cancer	NHMRC Project Grant	\$610,591	\$203,530	2019-2021
Zarnie Lwin , Alexander Broom, Claire Wakefield, Emma Kirby, Barbara Prainsack, Mustafa Khasraw, Katherine Kenny, Stephanie Raymond	Medical Oncology	Precision and the Person: A sociological study of therapeutic innovation in cancer care	Australian Research Council (Discovery)	\$470,650	\$470,650	2019
Kathryn Hurree, Elise Button, Midori Nakagaki, Nicole Gavin, Adcock K, Karen Whitfield, Douglas C, Michael Smith, David Wyld , Glen Kennedy	Medical Oncology	Educating patients – their way: A co-design approach to develop patient education videos regarding medication administration and supportive cares	Metro North Hospital and Health Service SEED Innovation grant	\$82,631	\$41,315	2018–2019
Janette Vardy, Haryana Dhillon, Kerry Courneya, Chris Booth, Chris O'Callaghan, John Zalberg, Matthew Burge	Medical Oncology	CHALLENGE: Colon Health And Life Long Exercise ChAnGE	NHMRC Project Grant	\$1,121,891	\$224,378	2019-2023
Melissa Eastgate, Anna Kuchel, Elizabeth Ahern , Rosalind Jeffree	Medical Oncology	Clinicopathologic feature predicting survival after brain metastasectomy in melanoma	2019 Phoebe Eales Melanoma Research Grant	\$39,350	\$19,675	2019-2020
David Wyld , Danica Cossio, Julie Moore, Phillipa Youl, Nancy Tran	Medical Oncology	Patterns of care for patients diagnosed with neuroendocrine cancer in Queensland	Ipsen Australia Research Grant	\$49,814	\$24,907	2019-2020
Hao-Wen Sim, Helen Wheeler, Zarnie Lwin , Kathryn Field, Benjamin Chua , David Espinoza, Michael Buckland, Kimberley Kaufman.	CCS DRO, DMO	PICCOG: PARP and Immune Checkpoint inhibitor Combination for relapsed IDH-mutant high-grade Glioma	NHMRC	\$1,391,472.20		2019-2023
Brett Hughes	Medical Oncology	Monitoring of Non-small cell lung cancer patients by liquid biopsy	RBWH 2019 Project Grant	\$15,000	\$30,00	2019-2020

2019 Research Publications

Journal Articles

1. **Ahern E, Cubitt A**, Ballard E, Teng MWL, Dougall WC, Smyth MJ, Godbolt D, Naidoo R, Goldrick A, **Hughes BGM**. Pharmacodynamics of Pre-Operative PD1 checkpoint blockade and receptor activator of NfκB ligand (RANKL) inhibition in non-small cell lung cancer (NSCLC): study protocol for a multicentre, open-label, phase 1B/2, translational trial (POPCORN). *Trials*. 2019; 20(1):753. doi: 10.1186/s13063-019-3951-x
2. Antonarakis ES, Piulats JM, Gross-Goupil M, **Goh J**, Ojamaa K, Hoimes CJ, Vaishampayan U, Berger R, Sezer A, Alanko T, de Wit R, Li C, Omlin A, Procopio G, Fukasawa S, Tabata K, Park SH, Feyerabend S, Drake CG, Wu H, Qiu P, Kim J, Poehlein C, de Bono JS. Pembrolizumab for Treatment-Refractory Metastatic Castration-Resistant Prostate Cancer: Multicohort, Open-Label Phase II KEYNOTE-199 Study. *JCO*. 2019 Nov 27 DOI: 10.1200/JCO.19.01638 [Epub ahead of print]
3. Broom A, Kirby E, Kokanović R, Woodland L, **Wyld D**, de Souza P, Koh ES, **Lwin Z**. Individualising difference, negotiating culture: Intersections of culture and care. *Health (London)*. 2019 Feb 13. doi: 10.1177/1363459319829192. [Epub ahead of print]
4. Broom J, Broom A, Good P, **Lwin Z**. Why is optimisation of antimicrobial use difficult at the end of life? *Intern Med J*. (2019);49(2):269-271. doi: 10.1111/imj.14200
5. Broom A, Parker RB, Kirby E, Kokanović R, Woodland L, **Lwin Z**, Koh ES. A qualitative study of cancer care professionals' experiences of working with migrant patients from diverse cultural backgrounds. *BMJ Open*. (2019);9(3): e025956. doi: 10.1136/bmjopen-2018-025956
6. **Burge M**, Price T, Karapetis CS. First-line therapy for metastatic colorectal cancer: Current perspectives and future directions. *Asia Pac J Clin Oncol*. (2019) 15 Suppl 1:3-14. doi: 10.1111/ajco.13119
7. Burtneß B, Harrington KJ, Greil R, Soulières D, Tahara M, de Castro G, Psyrrri A, Basté N, Neupane P, Bratland A, Fuereder T, **Hughes BGM**, Mesía R, Ngamphaiboon N, Rordorf T, Ishak WZW, Hong R, Mendoza RG, Roy A, Zhang Y, Gumuscu B, Cheng JD, Jin F, Rischin D on behalf of the Pembrolizumab alone or with chemotherapy versus cetuximab with chemotherapy for recurrent or metastatic squamous cell carcinoma of the head and neck (KEYNOTE-048): a randomised, open-label, phase 3 study KEYNOTE-048 Investigators. *Lancet*. 2019; 394(10212):1915-1928. DOI: [https://doi.org/10.1016/S0140-6736\(19\)32591-7](https://doi.org/10.1016/S0140-6736(19)32591-7)
8. Button E, Northfield S, Smith M, **Wyld D**, Nasato G, Yates P. How do cancer care services in Australia take care of their patients when they require emergency care? We need more evidence. *Aust Health Rev*. 2019 Oct 17. doi: 10.1071/AH19118. [Epub ahead of print]
9. Chan RJ, Blades R, Jones L, Downer TR, Peet SC, 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. *Radiother Oncol*. 2019; 139:72-78. doi: 10.1016/j.radonc.2019.07.014
10. Chan S, **Ahern E**, Chaudhry S, **Hughes B**. Bilateral acute anterior uveitis: a rare ocular side effect of erlotinib. *British Medical Journal Case Rep*. 2019 Dec 15;12(12). pii: e232868. doi: 10.1136/bcr-2019-232868
11. Cheasley D, Wakefield MJ, Ryland GL, Allan PE, Alsop K, Amarasinghe KC, Ananda S1, Anglesio MS, Au-Yeung G, Böhm M, Bowtell DDL, Brand A, Chenevix-Trench G, Christie M, Chiew YE, Churchman M, DeFazio A, Demeo R, Dudley R, Fairweather N, Fedele CG, Fereday S, Fox SB, Gilks CB, Gourley C, Hacker NF, **Hadley AM**, Hendley J, Ho GY, Hughes S, Hunstman DG, Hunter SM, Jobling TW, Kalli KR, Kaufmann SH, Kennedy CJ7, Köbel M, Le Page C, Li J1, Lupat R, McNally OM, McAlpine JN, Mes-Masson AM, Mileskin L, Provencher DM, Pyman J, Rahimi K, Rowley SM, Salazar C, Samimi G, Saunders H, Semple T, Sharma R, Sharpe AJ, Stephens AN, Thio N, Torres MC, Traficante N, Xing Z1, Zethoven M, Antill YC, Scott CL, Campbell IG, Gorringer KL. The Molecular Origin and Taxonomy of Mucinous Ovarian Carcinoma. *Nat Commun*. (2019);10(1):3935. doi: 10.1038/s41467-019-11862-x
12. Day BW, Lathia JD, Bruce ZC, D'Souza RCJ, Baumgartner U, Ensbeß KS, Lim YC, Stringer BW, Akgül S, Offenhäuser C, Li Y, Jamieson PR, Smith FM, Jurd CLR, Robertson T, **Inglis PL**, **Lwin Z**, Jeffrey RL, Johns TG, Bhat KPL, Rich JN, Campbell KP, Boyd AW. The dystroglycan receptor maintains glioma stem cells in the vascular niche. *Acta Neuropathol*. 2019 Aug 28. doi: 10.1007/s00401-019-02069-x. [Epub ahead of print]
13. Fong KM, **Hughes BGM**, **Lwin Z**, Yang IA. EGFR mutations in lung cancer: not all equal in the eyes of the immune system? *Ann Transl Med* 2019; 7(8); S326. doi: 10.21037/atm.2019.09.132
14. Fong L, Hotson A, Powderly J, Sznol M, Heist R, Choueiri T, George S, **Hughes BGM**, Hellmann M, Shepard D, Rini B, Kummar S, Weise A, Riese M, Markman B, Emens L, Mahadevan D, Luke J, Laport G, Buggy J, Brody J, Hernandez-Aya L, Bonomi P, Goldman J, Berim L, Renouf D, Goodwin R, Kwei L, Willingham S, Miller R. Adenosine A2A Receptor Blockade as an Immunotherapy for Treatment-Refractory Renal Cell Cancer. *Cancer Discovery*. 2019 Nov 15. pii: CD-19-0980. doi: 10.1158/2159-8290.CD-19-0980. [Epub ahead of print]
15. Guccione L, Gough K, Drosowsky A, Fisher K, Price T, Pavlakis N, Khasraw M, **Wyld D**, Ransom D, Kong G, Rogers M, Leyden S, Leyden J, Michael M, Schofield P. Defining the Supportive Care Needs and Psychological Morbidity of Patients With Functioning Versus Nonfunctioning Neuroendocrine Tumors: Protocol for a Phase 1 Trial of a Nurse-Led Online and Phone-Based Intervention. *JMIR Res Protoc*. 2019; 8(12): e14361. doi: 10.2196/14361
16. Heng S, **Hughes B**, Hibbert M, Khasraw M, **Lwin Z**. Traveling With Cancer: A Guide for Oncologists in the Modern World. *J Glob Oncol*. 2019 5:1-10. doi: 10.1200/JGO.19.00029
17. Kenny K, Broom A, Kirby E, Oliffe JL, **Wyld D**, **Lwin Z**. Reciprocity, Autonomy, and Vulnerability in Men's Experiences of Informal Cancer Care. *Qual Health Res*. 2019 Jun 19; doi: 10.1177/1049732319855962. [Epub ahead of print]
18. Kirby E, Broom A, Karikios D, Harrup R, **Lwin Z**. Exploring the impact and experience of fractional work in medicine: a qualitative study of medical oncologists in Australia. *British Medical Journal Open*. 2019; 9(12): e032585. doi: 10.1136/bmjopen-2019-032585
19. Kirby ER, Kenny KE, Broom AF, Oliffe JL, Lewis S, **Wyld DK**, Yates PM, Parker RB, **Lwin Z**. Responses to a cancer diagnosis: a qualitative patient-centred interview study. *Support Care Cancer*. 2019 Apr 24. doi: 10.1007/s00520-019-04796-z. [Epub ahead of print]
20. Kok PS, Beale P, O'Connell RL, Grant P, Bonaventura T, Scurry J, Antill Y, **Goh J**, Sjoquist K, DeFazio A, Mapagu C, Amant F, Friedlander M, on behalf of the PARAGON Investigators. PARAGON (ANZGOG-0903): a phase 2 study of anastrozole in asymptomatic patients with estrogen and progesterone receptor-positive recurrent ovarian cancer and CA125 progression, *Journal of Gynaecologic Oncology*. [Epub ahead of print] Apr 30, 2019. <https://doi.org/10.3802/jgo.2019.30.e86>
21. Kulasinghe A, **Hughes BGM**, Kenny L, Punyadeera C. Circulating tumour cells in head and neck cancer: an update. *Expert Reviews in Molecular Diagnostics* 2019. doi.org/10.1080/14737159.2020.1688145

Journal Articles (cont)

22. Le DT, Kim TW, Van Cutsem E, Geva R, Jäger D, Hara H, **Burge M**, O'Neil B, Kavan P, Yoshino T, Guimbaud R, Taniguchi H, Elez E, Al-Batran SE, Boland PM, Crocenzi T, Atreya CE, Cui Y, Dai T, Marinello P, Diaz LA Jr, André T. Phase II Open-Label Study of Pembrolizumab in Treatment-Refractory, Microsatellite Instability-High/Mismatch Repair-Deficient Metastatic Colorectal Cancer: KEYNOTE-164. *Journal of Clinical Oncology*. 2019 Nov 14; JCO1902107. doi: 10.1200/JCO.19.02107. [Epub ahead of print]
23. Lee B, Lipton L, Cohen J, Tie J, Javed AA, Li L, Goldstein D, **Burge M**, Cooray P, Nagrial A, Tebbutt NC, Thomson B, Nikfarjam M, Harris M, Haydon A, Lawrence B, Wm Tai D, Simons K, Lennon AM, Wolfgang CL, Tomasetti C, Papadopoulos N, Kinzler KW, Vogelstein B, Gibbs P. Circulating tumor DNA as a potential marker of adjuvant chemotherapy benefit following surgery for localised pancreatic cancer. *Ann Oncol*. 2019 Jun 28. pii: mdz200. doi: 10.1093/annonc/mdz200. [Epub ahead of print]
24. **Lee SF, Burge M, Eastgate M**. Metastatic colorectal cancer during pregnancy: A tertiary center experience and review of the literature. *Obstet Med*. (2019);12(1):38-41. doi: 10.1177/1753495X18755958
25. Lindemann K, Beale P, Rossi E, **Goh J**, Vaughan M, Tenney M, Martyn J, Sommeijer D, Inglesias J, Kremmidiotis G, Simpson J, Doolin E, Lavranos T, Leske A, Veillard A, Espinoza D, Stockler M, Rischin D. (ANZGOG-1103) Phase I study of BNC105P, carboplatin and gemcitabine in partially platinum-sensitive ovarian cancer patients in first or second relapse. *Cancer Chemotherapy and Pharmacology*, Vol 83. 2019 January
26. McCrary JM, Goldstein D, **Wyld D**, Henderson R, Lewis CR, Park SB. Mobility in survivors with chemotherapy-induced peripheral neuropathy and utility of the 6-min walk test. *J Cancer Surviv*. 2019; 13(4): 495-502. doi: 10.1007/s11764-019-00769-7
27. Mileshkin L, Edmondson R, O'Connell RL, Sjoquist KM, Andrews J, Jyothirmayi R, Beale P, Bonaventura T, **Goh J**, Hall M, Clamp A, Green J, Lord R, Amant F, Alexander L, Carty K, Paul J, Scurry J, Millan D, Nottley S, Friedlander M, PARAGON study group. Phase 2 study of anastrozole in recurrent estrogen (ER)/progesterone (PR) positive endometrial cancer: The PARAGON trial - ANZGOG 0903. *Gynecol Oncol*. 2019;154(1):29-37. doi: 10.1016/j.ygyno.2019.05.007
28. Mendis S, Beck S, Lee B, Lee M, Wong R, Kosmider S, Shapiro J, Yip D, Steel S, Nott L, Jennens R, Lipton L, **Burge M**, Field K, Ananda S, Wong HL, Gibbs P. Right versus left sided metastatic colorectal cancer: Teasing out clinicopathologic drivers of disparity in survival. *Asia Pac J Clin Oncol*. 2019 Feb 13. doi: 10.1111/ajco.13135. [Epub ahead of print]
29. Moroney LB, Helios J, Ward EC, Crombie J, Burns CL, Yeo SQ, Pelecanos A, Spurgin AL, Blake C, Kenny L, Chua B, **Hughes BGM**. Radiotherapy for cutaneous head and neck cancer and parotid tumours: A prospective investigation of treatment related acute swallowing and toxicity patterns. *Supportive Care in Cancer* 2019; 27(2): 573-581
30. Moroney LB, Ward EC, Helios J, Crombie J, Burns CL, Blake C, Comans T, Chua B, Kenny L, **Hughes BGM**. Evaluation of a speech pathology service delivery model for patients at low dysphagia risk during radiotherapy for HNC. *Support Care Cancer*. 2019 Jul 27. doi: 10.1007/s00520-019-04992-x. [Epub ahead of print]
31. Northfield S, Button E, **Wyld D**, Gavin NC, 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*. *Eur J Oncol Nurs*. 2019; 40: 85-97. doi: 10.1016/j.ejon.2019.02.005
32. Parente P, Chan BA, **Hughes BGM**, Jasas K, Joshi R, Kao S, Hegi-Johnson F, Hui R, McLaughlin-Barrett S, Nordman I, Emily Stone. Patterns of Care for Stage III Non-Small Cell Lung Cancer in Australia. *APJCO* 2019. doi.org/10.1111/ajco.13140
33. Ratnayake G, Shanker M, Roberts K, Mason R, **Hughes BGM, Lwin Z**, Jain V, O'Byrne K, Lehman M, Chua B. Prior or Concurrent Radiotherapy and Nivolumab Immunotherapy in Non-Small Cell Lung Cancer. *Asia Pacific Journal Clinical Oncology*. 2019 Nov 12. doi: 10.1111/ajco.13242. [Epub ahead of print]
34. **Roberts NA**, Alexander K, **Wyld D**, Janda M. Factors in Randomized Controlled Trials Reported to Impact the Implementation of Patient-Reported Outcome Measures Into Routine Care: Protocol for a Systematic Review. *JMIR Res Protoc*. 2019; 8(11): e14579. doi: 10.2196/14579
35. **Roberts NA**, Alexander K, **Wyld D**, Janda M. What is needed by staff to implement PROMs into routine oncology care? A qualitative study with the multi-disciplinary team. *Eur J Cancer Care (Engl)*. 2019 Oct 11: e13167. doi: 10.1111/ecc.13167. [Epub ahead of print]
36. **Roberts NA**, Mudge A, Alexander K, **Wyld D**, Janda M. The iPROMOS protocol: a stepped-wedge study to implement routine patient-reported outcomes in a medical oncology outpatient setting. *BMJ Open*. (2019) 9(2): e027046. doi: 10.1136/bmjopen-2018-027046
37. Schmidt A, Azad A, **Goh J**, Harris C, Joshua AM, Weickhardt A, Krieger L. Treatment selection for first-line metastatic renal cell carcinoma in Australia: Impact of new therapy options. *APJCO*. 2019; 15(S10):3-10. doi.org/10.1111/ajco.13289
38. Semira C, Wong H, **Burge M**, 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
39. Shaw TB, Jeffree RL, Thomas P, Goodman S, Debowski M, **Lwin Z**, Chua B1, Diagnostic performance of 18F-fluorodeoxyglucose positron emission tomography in the evaluation of glioma. *J Med Imaging Radiat Oncol*. 2019 Aug 1. doi: 10.1111/1754-9485.12929. [Epub ahead of print]
40. Stringer BW, Day BW, D'Souza RCJ, Jamieson PR, Ensby KS, Bruce ZC, Lim YC, Goasdoué K, Offenhäuser C, Akgül S, Allan S, Robertson T, Lucas P, Tolleson G, Campbell S, Winter C, Do H, Dobrovic A, **Inglis PL**, Jeffree RL, Johns TG, Boyd AW. A reference collection of patient-derived cell line and xenograft models of proneural, classical and mesenchymal glioblastoma. *Nature.Sci Rep*. (2019);9(1):4902. doi: 10.1038/s41598-019-41277-z
41. Tan JY, Senko C, **Hughes B, Lwin Z**, Bennett R, Power J, Thomson L. The Weighted Activity Unit (WAU) effect: evaluating the cost of Diagnosis Related Group (DRG) coding. *Intern Med J*. 2019 May 20. doi: 10.1111/imj.14373. [Epub ahead of print]
42. Tang M, O'Connell RL, Amant F, Beale P, McNally O, Sjoquist KM, Grant P, Davis A, Sykes P, Mileshkin L, Moujaber T, Kennedy CJ, deFazio A, Tan K, Antill Y, **Goh J**, Bonaventura T, Scurry J, Friedlander M. PARAGON: A Phase II study of anastrozole in patients with estrogen receptor-positive recurrent/metastatic low-grade ovarian cancers and serous borderline ovarian tumors. *Gynecol Oncol*. 2019 Jun 18. pii: S0090-8258(19)31322-8. doi: 10.1016/j.ygyno.2019.06.011. [Epub ahead of print]
43. Turner J, Yates P, Kenny L, Gordon LG, Burmeister B, Thomson D, **Hughes BGM**, McCarthy AL, Perry C, Chan RJ, Fraser A, Skerman H, Batstone M. The ENHANCES study – Enhancing head and neck cancer patients' experiences of survivorship: Final results. *Support Care Cancer*. 2019; 27(12):4627-4637. doi.org/10.1007/s00520-019-04748-7

Journal Articles (cont)

44. van Haeringen B, **Wyld D**, **Burge M**. Prognostic and predictive clinical, pathological, and molecular biomarkers in metastatic colorectal carcinoma – a review. *Australian Medical Student Journal*. 2019; 9(1): 30-35
45. Vasista A, Stockler M, Martin A, Pavlakis N, Sjoquist K, Goldstein D, Gill S, Jain V, Liu G, Kannourakis G, Kim YH, Nott L, Snow S, **Burge M**, Harris D, Jonker D, Chua YJ, Epstein R, Bonaventura A, Kiely B. Accuracy and Prognostic Significance of Oncologists' Estimates and Scenarios for Survival Time in Advanced Gastric Cancer. *The Oncologist*. 2019; 24(11): e1102-e1107
46. Woodhouse B, Pattison S, Segelov E, Singh S, Parker K, Kong G, Macdonald W, **Wyld D**, Meyer-Rochow G, Pavlakis N, Conroy S, Gordon V, Koea J, Kramer N, Michael M, Wakelin K, Asif T, Lo D, Price T, Lawrence B, Commonwealth Neuroendocrine Tumour Collaboration (CommNETs). Consensus-Derived Quality Performance Indicators for Neuroendocrine Tumour Care. *J Clin Med*. 2019; 8(9), 1455. doi: 10.3390/jcm8091455
47. **Wyld D**, Wan MH, Moore J, Dunn N, Youl P. Epidemiological trends of neuroendocrine tumours over three decades in Queensland, Australia. *Cancer Epidemiology*, 2019, Volume 63, Article 101598
48. Zeidan Z, **Lwin Z**, Iswariah H, Manawwar S, Karunairajah A, Chandrasegaram MD. Unusual Presentation of a Sigmoid Mass with Chicken Bone Impaction in the Setting of Metastatic Lung Cancer. *Case Reports in surgery* 2019: 1-10. <https://doi.org/10.1155/2019/1016534>
49. Davis ID, Martin AJ, Stockler MR, Begbie S, Chi KN, Chowdhury S, Coskinas X, Frydenberg M, Hague WE, Horvath LG, Joshua AM, Lawrence NJ, Marx G, McCaffrey J, McDermott R, McJannett M, North SA, Parnis F, Parulekar W, Pook DW, Reaume MN, Sandhu SK, Tan A, Tan TH, Thomson A, Tu E, Vera-Badillo F, Williams SG, Yip S, Zhang AY, Zielinski RR, Sweeney CJ; ENZAMET Trial Investigators and the Australian and New Zealand Urogenital and Prostate Cancer Trials Group. Enzalutamide with Standard First-Line Therapy in Metastatic Prostate Cancer. *N Engl J Med*. 2019;381(2):121-131. doi: 10.1056/NEJMoa1903835 (**Suder A**)
50. Hofman MS, Emmett L, Violet J, Zhang A, N, Lawrence NJ, Stockler M, Francis RJ, Iravani A, Williams S, Azad A, Martin A, McJannett M, ANZUP Therap team, Davis ID. A randomised phase 2 trial of 177Lu-PSMA-617 theranostic versus cabazitaxel in progressive metastatic castration resistant prostate cancer: (ANZUP 1603). *BJU International*, (2019) <https://doi.org/10.1111/bju.14876> Epub ahead of print 2019 Oct 22 (**Goh J**)
51. Pagani O, Francis PA, Fleming GF, Walley BA, Viale G, Colleoni M, Lang I, Gomez HL, Tondini C, Pinotti G, Di Leo A, Coates AS, Goldhirsch A, Gelber RD, Regan MM for the SOFT and TEXT Investigators and International Breast Cancer Study Group Absolute Improvements in Freedom From Distant Recurrence to Tailor Adjuvant Endocrine Therapies for Premenopausal Women: Results From TEXT and SOFT. *Journal of Clinical Oncology*. (2019) DOI <https://doi.org/10.1200/JCO.18.01967> Epub ahead of print (**Nottage M**).

2019 Conference Presentations – Invited Speaker, Oral and Poster

Invited Speakers

1. **Downs E, Keating A, Butler J, Kennedy G**. A Collaborative Approach in the Management of Late Onset Grade IV skin GVHD of an Adolescent Male Post Allogeneic Bone Marrow Transplant. Haematology Association of Australia Annual Scientific Meeting, 2016.
2. **Eastgate M**. Colorectal Cancer Clinical Trials at the RBWH. Brisbane Cancer Conference, 2019. Brisbane Australia
3. **Eastgate M**. Teletrials. Cancer Care Services Research Retreat 2019. Brisbane, Australia
4. **Eastgate M**. The critically unwell patient with cancer, a multidisciplinary challenge. Immunotherapy – a new paradigm in treatment and toxicity. Herston State of the Art Healthcare Symposium 2019. Brisbane Australia
5. **Hughes BGM**. Advances in systemic therapy of head and neck cancer. The Australian Society of Otolaryngology Head and Neck Surgery 2019. Brisbane, Australia
6. **Wyld D**. CONTROL NETs clinical trial update. Australasian Gastro-Intestinal trials Group Annual Scientific Meeting 2019. Adelaide, Australia
7. **Wyld D**. Phase 1 Research and Theranostics. Cancer Care Services Research Retreat 2019. Brisbane, Australia
8. **Wyld D**. The critically unwell patient with cancer, a multidisciplinary challenge. Caring for Culturally and Linguistically Diverse Patients. Herston State of the Art Healthcare Symposium 2019. Brisbane Australia.

Oral Presentations

1. Allan E, **Ives A**, Turner M. Making a difference. Trial e-Filing Systems Clinical Oncology Society of Australia ASM 2019 Adelaide, Australia
2. Clamp AR, Oza AM, Lorusso D, Aghajanian C, Oaknin A, Dean A, Colombo N, Weberpals JI, Scambia G, Leary A, Holloway RW, Gancedo MA, Fong PC, **Goh JC**, O'Malley DM, Armstrong DK, Banerjee S, García-Donas J, Swisher EM, Cameron T, Maloney L, Goble S, Coleman RL, Ledermann JA. Effect of Progression-Free Interval Following Penultimate Platinum-Based Regimen on the Efficacy of Rucaparib Maintenance Treatment in Patients with Platinum-Sensitive, Recurrent Ovarian Carcinoma: An Analysis from the Phase 3 Study ARIEL3. 21st International Meeting of the European Society of Gynaecological Oncology (ESGO) Athens, Greece
3. Coleman RL, Oza AM, Lorusso D, Aghajanian C, Oaknin A, Dean A, Colombo N, Weberpals JI, Clamp AR, Scambia G, Leary A, Holloway RW, Gancedo AM, Fong PC, **Goh JC**, O'Malley DM, Goble S, Cameron T, Bedel J, Ledermann JA. Exploratory analysis of postprogression and patient-centered outcomes in Ariel3: A phase 3, randomized, placebo-controlled study of rucaparib maintenance treatment in patients with recurrent ovarian carcinoma. Gynecologic Cancer Society (IGCS) Global Meeting 2019 Rio de Janeiro, Brazil
4. **Eastgate M, Wyld D**. Monitoring testing outcomes and treatment practices in metastatic colorectal cancer. Queensland Clinical Senate, 2019. Brisbane, Australia
5. Fong L, Powderly J, Luke J, Hotson D, Sznol M, George S, Choueri T, Rini B, Hellmann M, Kummar S, Hernandez-Aya L, Mahadevan D, **Hughes BGM**, Markman B, Riese M, Brody J, Renouf D, Heist R, Goodwin R, Wiese A, Emens L, Willingham S, Kwei L, Laport G, Miller R. Refractory Renal Cell Cancer (RCC) Exhibits High Adenosine A2A Receptor (A2AR) Expression and Prolonged Survival Following Treatment with the A2AR Antagonist CPI-444. SITC-ASCO 2019. San Francisco, USA
6. **Hughes BGM**. Advances in systemic therapy of head and neck cancer. The Australian Society of Otolaryngology Head and Neck Surgery 2019. Brisbane, Australia

Oral Presentations (cont)

7. **Kuchel A.** Clinical characteristics of BRAF-mutant metastatic colorectal cancer (mCRC) cases in a real-world cohort study. Cancer Care Services Research Retreat 2019. Brisbane, Australia
8. **Kuchel A, Eastgate M.** Reviewing Medical Oncology clinic activity and models of care to improve the patient experience. Queensland Clinical Senate, 2019. Brisbane, Australia
9. Ledermann JA, Oza AM, Lorusso D, Aghajanian C, Oaknin A, Dean A, Colombo N, Weberpals JI, Clamp AR, Scambia G, Leary A, Holloway RW, Gancedo MA, Fong PC, **Goh JC**, Backes F, Banerjee S, Goble S, Cameron T, Coleman RL. The Effect of Age on Efficacy and Safety Outcomes with Rucaparib: A Post Hoc Exploratory Analysis of ARIEL3, a Phase 3, Randomized, Placebo-Controlled Maintenance Study in Patients with Recurrent Ovarian Carcinoma. Society of Gynaecologic Cancer 50th Annual Meeting 2019. Honolulu, USA
10. Lepletier de Oliveira A, Madore J, O'donnell JS, Johnston RL, **Eastgate M**, Mallardo D, Ascierio P, Massi D, Merelli B, Mandala M, Wilmott JS, Bald T, Stagg J, Routy B, Long GV, Scolyer RA, Waddell N, Dougall WC, Teng MWL, Smyth M. Resistance to immunotherapy is associated with high parenchymal PD1+CD8+/CD8+ T cells (PD1tr) driven by tumor CD155. European Society for Medical Oncology (ESMO) Immunology Congress 2019. Geneva, Switzerland
11. Rischin D, Harrington KJ, Greil R, Soulieres D, Tahara M, de Castro G, Psyri A, Baste N, Neupane PC, Bratland A, Fuereder T, **Hughes BGM**, Mesia R, Ngamphaiboon N, Rordorf T, Ishak WZW, Zhang Y, Jin F, Gumuscu B, Burtneis B. Protocol-specified final analysis of the phase 3 KEYNOTE-048 trial of pembrolizumab (pembro) as first-line therapy for recurrent/metastatic head and neck squamous cell carcinoma (R/M HNSCC). American Society of Clinical Oncology Annual Conference 2019. Chicago, USA
12. **Thaker DA**, Bryant G, **Wyld D**, Leach J, Wheatley H, Garth V. Our experience of nursing/allied health practitioner-led geriatric screening and assessment of elderly oncology patients: a highly accessible model of care. 19th Conference of the International Society of Geriatric Oncology 2019. Geneva, Switzerland. Journal of Geriatric Oncology 10 (6), S61-S63
13. **Thaker D, Wyld D**, Leach J, Wheatley H. Enhancing Screening, Assessment and Intervention for Older Oncology Patients (ESAIOP): MNHHS initiative of Nursing/Allied Health (AH) team led Geriatric Oncology service. Cancer Care Services Research Retreat 2019. Brisbane, Australia.

Posters Presentations

1. **Ahern E, Cubitt A**, Ballard E, Teng MWL, Dougall WC, Smyth MJ, **Hughes BGM**. Preoperative PD1 checkpoint blockade and receptor activator of NFkB ligand (RANKL) inhibition in non-small cell lung cancer (NSCLC) (POPCORN) ASCO-SITC Clinical Immunology Symposium 2019 San Francisco, USA
2. **Ahern E, Kuchel A, Pritchard W, Eastgate M, Wyld D, Burge M** Clinical characteristics of BRAF-mutant metastatic colorectal cancer (mCRC) cases in a real-world cohort study. Australian Gastro-Intestinal Trials Group Annual Scientific Meeting 2019. Adelaide, Australia
3. **Ahern E, Kuchel A, Pritchard W, Eastgate M, Wyld D, Burge M** Clinical characteristics of BRAF-mutant metastatic colorectal cancer (mCRC) cases in a real-world cohort study. Cancer Care Services Research Retreat 2019. Brisbane, Australia
4. Brown T, Banks M, Campbell L, **Hughes B, Ahern E**, C Lin C, Kenny L, Bauer J. Assessment of sarcopenia and malnutrition in patients with head and neck cancer undergoing treatment of curative intent – implications for practice. International Conference on Cachexia, Sarcopenia and Muscle Wasting 2019. Berlin, Germany
5. Chan C, Blades R, Jones L, Button E, **Wyld D**, 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 44th Annual Congress, 2019 Anaheim, USA
6. Chong C, Jalali A, Wong H, Loft M, Wong 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 Australasian patients with metastatic colorectal cancer. Australian Gastro-Intestinal Trials Group Annual Scientific Meeting 2019. Adelaide, Australia
7. Coleman RL, Oza AM, Lorusso D, Aghajanian C, Oaknin A, Dean A, Colombo N, Weberpals JI, Clamp RA, Scambia G, Leary A, Holloway RW, Gancedo MA, Fong PC, **Goh JC**, O'Malley DM, Banerjee S, Goble S, Cameron T, Ledermann JA. Post Hoc Exploratory Analysis of Rucaparib in Patients with Platinum-Sensitive Recurrent Ovarian Carcinoma from the Randomized, Placebo-Controlled Phase 3 Study ARIEL3: Effect of a Deleterious Germline or No Germline BRCA Mutation on Efficacy and Safety. Society of Gynaecologic Cancer 50th Annual Meeting 2019. Honolulu, USA
8. Coleman RL, Oza AM, Lorusso D, Aghajanian C, Oaknin A, Dean A, Colombo N, Weberpals JI, Clamp AR, Scambia G, Leary A, Holloway RW, Gancedo MA, Fong PC, **Goh JC**, O'Malley DM, Cameron T, Maloney L, Goble S, Ledermann JA. Exploratory Analysis of the Effect of Maintenance Rucaparib on Postprogression Outcomes in Patients with Platinum-Sensitive Recurrent Ovarian Carcinoma and Updated Safety Data from the Phase 3 Study ARIEL3. American Society of Clinical Oncology 2019. Chicago, USA
9. **Collins S, Ahern E, Kuchel A, Pritchard W**, Whitehall V, **Eastgate M, Wyld D, Burge M**. Trends in RAS testing in metastatic colorectal cancer (mCRC) cases in a real-world cohort study. Australian Gastro-Intestinal Trials Group Annual Scientific Meeting 2019. Adelaide, Australia
10. **Collins S, Ahern E, Kuchel A, Pritchard W**, Whitehall V, **Eastgate M, Wyld D, Burge M**. Trends in RAS testing in metastatic colorectal cancer (mCRC) cases in a real-world cohort study. Cancer Care Services Research Retreat 2019. Brisbane, Australia
11. Dirix L, Vergote I, Denys H, Oza AM, Lorusso D, Aghajanian C, Oaknin A, Dean A, Colombo N, Weberpals JI, Clamp AR, Scambia G, Leary A, Holloway RW, Gancedo MA, Fong PC, **Goh JC**, O'Malley DM, Banerjee S, Goble S, Cameron T, Coleman RL, Ledermann JA. Subgroup Analysis of Rucaparib in Platinum-Sensitive Recurrent Ovarian Carcinoma: Effect of Prior Chemotherapy Regimens in ARIEL3. Belgian Society of Medical Oncology 21st Annual Meeting. 2019. Liege, Belgium
12. Fong L, Powderly J, Luke J, Hotson D, Sznol M, George S, Choueri T, Rini B, Hellmann M, Kummar S, Hernandez-Aya L, Mahadevan D, **Hughes BGM**, Markman B, Riese M, Brody J, Renouf D, Heist R, Goodwin R, Wiese A, Emens L, Willingham S, Kwei L, Laport G, Miller R. Refractory Renal Cell Cancer (RCC) Exhibits High Adenosine A2A Receptor (A2AR) Expression and Prolonged Survival Following Treatment with the A2AR Antagonist CPI-444. Society for Immunotherapy of Cancer 2019. National Harbour, USA
13. Gan HK, Cher L, **Inglis P, Lwin Z**, Lau E, Wichmann C, Ackermann U, Coombs N, Remen K, Guo N, Lee ST, Gong S, Palmer J, Pathmaraj K, O'Keefe G, Scott F, Day BW, Boyd AW, Thomas P, Durrant C, Scott1 AM. Preliminary findings of a phase I safety and bioimaging trial of KB004 (Ifabotuzumab) in patients with glioblastoma. American Association for Cancer Research Annual Meeting 2019. Georgia USA

Poster Presentations (cont)

14. Geva R, Im S, **Lwin Z**, Weils, Xu L, Morosky A, Norwood KG, Chung HC. Phase 2 study of lenvatinib plus pembrolizumab in previously treated patients with solid tumors: LEAP-005. Society for Immunotherapy of Cancer 34th Annual Conference 2019. Maryland, USA
15. Grob JJ, Gonzalez Mendoza R, Basset-Seguín N, Schachter J, Vornicova O, Bauman J, Grange F, Meyer N, Piulats J, Zhang P, Gumuscu B, Swaby R, **Hughes BGM**. KEYNOTE-629: Phase 2 study of pembrolizumab for recurrent/metastatic or locally advanced unresectable cutaneous squamous cell carcinoma. American Association for Cancer Research Annual Meeting 2019. Georgia USA
16. Grob JJ, Gonzalez Mendoza R, Basset-Seguín N, Schachter J, Vornicova O, Bauman J, Grange F, Meyer N, Piulats J, Zhang P, Gumuscu B, Swaby R, **Hughes BGM**. KEYNOTE-629: Phase 2 study of pembrolizumab for recurrent/metastatic or locally advanced unresectable cutaneous squamous cell carcinoma. American Society of Clinical Oncology 2019. Chicago, USA
17. Grob JJ, Gonzalez Mendoza R, Basset-Seguín N, Vornicova O, Schachter J, Joshi A, Meyer N, Grange F, Piulats JM, Bauman JR, Zhang P, Gumuscu B, Swaby RF, **Hughes BGM**. Pembrolizumab for Recurrent/Metastatic Cutaneous Squamous Cell Carcinoma (cSCC): Efficacy and Safety Results From the Phase 2 KEYNOTE-629 Study. European Society of Medical Oncology Congress 2019. Barcelona, Spain
18. Grob JJ, Gonzalez Mendoza R, Basset-Seguín N, Schachter J, Vornicova O, Bauman J, Grange F, Meyer N, Piulats J, Zhang P, Gumuscu B, Swaby R, **Hughes BGM**. KEYNOTE-629: Phase 2 study of pembrolizumab for recurrent/metastatic or locally advanced unresectable cutaneous squamous cell carcinoma. American Association for Cancer Research 2019. Boston, USA
19. Guminski A, Lim AM, Khushalani NI, Schmults CD, Hernandez-Aya L, Modi B, Dunn LA, Hughes BGM, Chang ALS, Hauschild A, Migden MR, Gutzmer R, Alam M, Fury MG, Lowy I, Stankevich E, Li S, Booth J, Jankovic V, Rischin D. Phase 2 Study of Cemiplimab, a Human Monoclonal Anti-PD-1, in Patients with Metastatic Cutaneous Squamous Cell Carcinoma (Group 1): 12-Month Follow-Up. American Society of Clinical Oncology 2019. Chicago, USA
20. Kanjanapan Y, Tran D, Lok S, Gibbs P, De Boer R, Yeo B, Greenberg S, Barnett F, Knott L, Richardson G, Wong R, **Nottage M**, Collins I, Torres J, Lombard J, Johns J, Harold M, Malik L. Impact of prior (neo)adjuvant trastuzumab exposure on the efficacy of HER2 targeted therapy for metastatic breast cancer. San Antonio Breast Cancer Symposium 2019 San Antonio, USA
21. **Kuchel A, Kermond A, Lonton J, Wyld D, Eastgate M**. Royal Brisbane medical oncology clinic activity review. Clinical Oncology Society Australia Annual Scientific Meeting 2019 Adelaide Australia
22. Kumari S, **Burge M** et al. Outcomes following resection of colorectal cancer liver metastases in the older patient. Australian Gastro-Intestinal Trials Group Annual Scientific Meeting 2019. Adelaide, Australia
23. Ladwa R, Pattison D, Smith J, Goodman S, **Burge M**, Rose S, Dowson N, **Wyld DK**. The impact of tumour absorbed dosimetry with survival outcomes after peptide receptor radionuclide therapy in metastatic neuroendocrine tumours. 1394P. European Society of Medical Oncology Congress 2019 Barcelona Spain
24. Lawrence NJ, Stockler MR, Martin AJ, Ford K, Stevanovic AG, **Wyld D**, Walpole ET, Troon S, Hanning FJ, Mallesara G, Weickhardt AJ, Birtle AJ, Davis ID, Grimison PS. P3BEP (ANZUP 1302): An international randomized phase III trial of accelerated versus standard BEP chemotherapy for adult and pediatric male and female patients with intermediate and poor-risk metastatic germ cell tumors (GCTs). ASCO Genitourinary Cancers Symposium 2019. San Francisco USA
25. Ledermann JA, Oza AM, Lorusso D, Aghajanian C, Oaknin A, Dean A, Colombo N, Weberpals JJ, Clamp AR, Scambia G, Leary A, Holloway RW, Gancedo MA, Fong PC, **Goh JC**, O'Malley MD, Cameron T, Maloney L, Goble S, Coleman RL. Effect of Response to Last Platinum-Based Chemotherapy in Patients with Platinum-Sensitive, Recurrent Ovarian Carcinoma in the Phase 3 Study ARIEL3 of Rucaparib Maintenance Treatment. European Society of Medical Oncology Congress 2019 Barcelona Spain
26. Lim LE, Thomas D, Chan D, **Wyld D**, Cehic G, Macdonald W, Tincknell G, Bailey D, **Kuchel A**, Du YT, Pavlakis N, Davis A, Segelov E. Australian multi-centre experience of the use of 177Lu-PRRT for bronchial carcinoid tumours European Society of Medical Oncology Congress 2019 Barcelona, Spain
27. Lok S, Baron-Hay S, Lim E, Blum R, Boyle F, Clarke K, Cuff K, Green M, Malik L, Mok K, Murray N, Nott L, **Nottage M**, Tafreshi A, Tsoi D, Yeo B, Gibbs P, De Boer R. A 'real world' experience of CDK4/6 inhibition with ribociclib and endocrine therapy in hormone receptor positive metastatic breast cancer in Australia. San Antonio Breast Cancer Symposium 2019 San Antonio, USA
28. Mendis SR, Lee B, Lee M, Wong R, Kosmider S, Shapiro JD, Yip D, Steel SA, Nott LM, Jennens R, Lipton LR, **Burge ME**, Field KM, Ananda S, Beck S, Wong H, Gibbs P. Left- versus right-side metastatic colorectal cancer: Teasing out clinicopathologic drivers of disparity in survival. American Society of Clinical Oncology 2019. Chicago, USA
29. Migden MR, Schmults CD, Guminski A, Hauschild A, Lewis KD, Chung CH, Hernandez-Aya L, Lim AM, Chang ALS, Rabinowits G, Thai AA, Dunn LA, **Hughes BGM**, Khushalani NI, Modi B, Schadendorf D, Berking C, Eigentler TK, Meier F, Ulrich C, Li S, Stankevich E, Lowy I, Fury MG, Rischin D. Duration of response (DoR) analysis of cemiplimab, a human monoclonal anti-PD-1, in the phase 2 study of patients with advanced cutaneous squamous cell carcinoma (CSCC). World Conference of Dermatology 2019. Milan, Italy
30. Migden MR, Schmults, CD, Guminski A, Hauschild A, Lewis KD, Chung CH, Hernandez-Aya L, Lim AM, Chang ALS, Rabinowits G, Thai AA, Dunn LA, **Hughes BGM**, Khushalani NI, Modi B, Schadendorf D, Berking C, Eigentler TK, Meier F, Ulrich C, Li S, Stankevich E, Lowy I, Fury MG, Rischin D. Duration of response (DoR) analysis of cemiplimab, a human monoclonal anti-PD-1, in the phase 2 study of patients with advanced cutaneous squamous cell carcinoma (CSCC). European Society of Medical Oncology Congress 2019. Barcelona, Spain
31. Mobasher M, Miller RA, Kwei L, Clark C, Law J, Luciano G, Heist RS, **Hughes BGM**, Markman B, Shepard DR, Fong L. Phase 1/1b Multicenter Trial of the Adenosine A2a Receptor Antagonist Ciforadenant (CPI-444) as Single Agent and in Combination with Atezolizumab in Patients with Advanced Cancers. American Society of Clinical Oncology 2019. Chicago, USA
32. Moor R, Roberts K, Mason R, Gunawan B, Feng S, Hong JH, Von Itzstein M, **Hughes BGM**, Jain V, Bigby K, Azer M, Sanmugarajah J, O'Byrne K. Immune-related Adverse Events and Nivolumab Outcomes in Non-Small Cell Lung Cancer Patients: A multi-institutional, retrospective cohort study. World Conference Lung Cancer 2019. Barcelona Spain
33. **Paxton-Hall F, Wyld D, Burge M**, Pattison D, You K. Outcome and toxicity of salvage therapy with 177 Lu-dotatate in patients with metastatic neuroendocrine tumours. Australasian Gastro-Intestinal trials Group Annual Scientific Meeting 2019. Adelaide, Australia
34. Porceddu S, Batstone M, Chan RJ, Collins M, Douthwaite S, **Hughes BGM**, Kenny L, Ladwa R, Panizza B, Negrello T, Dunn N, Cossio D. Changing demographics and patterns of care in oropharyngeal cancer: a statewide population-based analysis. Clinical Oncology Society Australia Annual Scientific Meeting 2019. Adelaide, Australia

Poster Presentations (cont)

35. Porceddu S, Batstone M, Chan RJ, Collins M, Dowthwaite S, **Hughes BGM**, Kenny L, Ladwa R, Panizza B, Negrello T, Dunn N, Cossio D. Population-wide review of head and neck cancer treatment and mortality; Queensland experience. Clinical Oncology Society Australia Annual Scientific Meeting 2019. Adelaide, Australia
36. Rischin D, Khushalani NI, Schmults CD, Guminski A, Chang ALS, Lewis KD, Lim AM, Hernandez-Aya L, **Hughes BGM**, Schadendorf D, Hauschild A, Stankevich E, Booth J, Li S, Chen Z, Desai J, Lowy I, Fury MG, Migden MR. Impact of prior lines of systemic therapy on the efficacy of cemiplimab, a human monoclonal anti-PD-1, in patients with advanced cutaneous squamous cell carcinoma (CSCC). European Society of Medical Oncology Immuno-Oncology 2019. Geneva, Switzerland
37. **Roberts N**, Alexander K, **Wyld D**, Janda M. What really happens when Patient-Reported Outcome Measurements (PROMs) are implemented in a busy clinic? RBWH Healthcare Symposium 2019. Brisbane, Australia
38. **Roberts N**, Western R, **Cubitt A**, Keller J, **Ives A**, **Wyld D**. Patient Understanding of Research in an Oncology Setting. (Abstract 83). ACTA International Clinical trials Conference 2019. Sydney, Australia
39. Senko C, Moore J, Hay K, **Lwin Z**, **Pratt G**, Fong K, **Hughes BGM**. The prognostic significance of significant weight loss in stage III NSCLC undergoing definitive CRT after FDG-PET staging. World Conference Lung Cancer 2019 Barcelona Spain
40. Sim H, Barnes E, **Lwin Z**, Rosenthal M, Wheeler H, Koh E, Foote M, Fisher L, Leonard R, Hall M, Simes J, Khasraw M. Health-related quality of life (HRQL) in VERTU: A randomized phase II trial of veliparib (V), radiotherapy (RT), and temozolomide (TMZ) for newly diagnosed MGMT unmethylated (uMGMT) glioblastoma (GBM). American Society of Clinical Oncology 2019. Chicago, USA
41. Tahara M, Burtness B, Harrington K, Greil R, Soulières D, de Castro G, Psyri A, Basté Rotllan N, Neupane P, Bratland A, Fuereder T, **Hughes BGM**, Mesia R, Ngamphaiboon N, Rordorf T, 15 Ishak WZW, Roy A, Cheng J, Jin F, Rischin D. Protocol-specified final analysis of the phase 3 KEYNOTE-048 trial of pembrolizumab (pembro) as first-line therapy for recurrent/metastatic head and neck squamous cell carcinoma (R/M HNSCC). Japanese Society of Medical Oncology 2019. Kyoto, Japan
42. **Tam L**, **Cook J**, **Suder A**, **Goh J**, **Kuchel A**. Testicular Cancer Surveillance – How Close are We to Following ANZUP Guidelines? ANZUP ASM 2018 Brisbane Australia
43. Tie J, Cohen J, Wang Y, Li L, Lee M, Wong R, Kosmider S, Wong H, Lee B, **Burge ME**, Yip D, Karapetis CS, Price TJ, Tebbutt NC, Haydon AM, Tomasetti C, Papadopoulos N, Kinzler KW, Vogelstein B, Gibbs P. A pooled analysis of multicenter cohort studies of post-surgery circulating tumor DNA (ctDNA) in early stage colorectal cancer. American Society of Clinical Oncology 2019. Chicago, USA
44. **Thaker DA**, Bryant G, **Wyld D**, Leach J, Wheatley H, Garth V. Our experience of nursing/allied health practitioner-led geriatric screening and assessment of elderly oncology patients: a highly accessible model of care. 19th Conference of the International Society of Geriatric Oncology 2019. Geneva, Switzerland. Journal of Geriatric Oncology 10 (6), S61-S63
45. Wirth L, Leboulleux S, Kiyota N, Tahara M, Muro K, Ahn MJ, Ando Y, Takahashi S, Kim SB, Misir S, Dutcus C, Ren M, Joshi P, **Hughes BGM**, Aller J, Krzyzanowska M, Capdevila J. Influence of Tumor Burden and Eastern Cooperative Oncology Group Performance Status (ECOG PS) at Baseline on Patient (Pt) Outcomes in Lenvatinib Treated Radioiodine-refractory Differentiated Thyroid Cancer (DTC). American Society of Clinical Oncology 2019. Chicago, USA
46. Wong H, **Burge M** et al. Understanding variation in treatment sequences and outcomes in metastatic colorectal cancer: Using real world data to answer real world questions. Australian Gastro-Intestinal Trials Group Annual Scientific Meeting 2019. Adelaide, Australia
47. Wong H, **Burge M** et al. A pooled analysis of Multicentre cohort studies of post-surgery circulating tumour DNA in early stage colorectal cancer. Australian Gastro-Intestinal Trials Group Annual Scientific Meeting 2019. Adelaide, Australia
48. **Wyld D**, Dunn N, Tran N, Moore J. Incidence and survival of Small Intestinal Tumours in Queensland, Australia, 2001-2015. European Neuroendocrine Tumour Society 16th Annual Conference, 2019. Barcelona, Spain
49. Zhang AY, Toner GC, Lawrence NJ, Stockler MR, Martin AJ, Ford K, Stevanovic AG, **Wyld D**, Walpole ET, Troon S, Hanning FJ, Mallesara G, Weickhardt AJ, Birtle AJ, Davis ID, Grimison PS, Australian and New Zealand Urogenital and Prostate Cancer Trials Group. P3BEP (ANZUP 1302): An international randomized phase III trial of accelerated versus standard BEP chemotherapy for adult and pediatric male and female patients with intermediate and poor-risk metastatic germ cell tumors (GCTs). Society of Clinical Oncology, Genitourinary 2019. San Francisco, USA.

RADIATION ONCOLOGY



Dr Graeme Dickie
Director Radiation Oncology
Cancer Care Services RBWH

The culture of inter-disciplinary collaboration and advancing technology in research remains strong for radiation oncology in 2019. The regular Research Core Group meeting helps guide the interests and co-ordinate medical, radiation therapist, physics and nursing streams. The aim and focus of the Radiation Oncology Research group is to promote, support and drive innovation, promote quality initiatives and ensure quality improvement projects deliver evidence-based practice, to ensure safe treatment delivery. Physics and radiation therapy lead most of the investigator-initiated technical studies, with the supervision of higher degrees.

Our department collaborates with several national and international trial groups, including the Tran-Tasman Radiation Oncology Group, Australian Lung Trial Group, Australian and New Zealand Urogenital and Prostate trials group. For some studies with those groups, there is a requirement for independent QA for patient accrual, and our department has been able to meet those standards. As new and emerging technologies are rapidly being assimilated into daily practice, the focus of research outcomes is to implement new technology in a scientific manner. Quality assurance and research into new technology is important to ensure, precision radiotherapy is delivered in a safe, efficient and cost-effective manner. Our department has expanded surface

guided radiotherapy, implemented quality-assured inspiration breath-hold technique and has expanded deformable registration for the planning and dosimetry review situations. The radiation oncology team has been successful in securing grants to proceed with several studies, and in utilising grants obtained through the Herston Biofabrication Institute to implement radiation oncology based projects utilising 3-D printing in a research framework. Radiation Oncology was instrumental in developing a research trials database to record research activity. This database has revolutionised the generation of research reports, facilitates centralised storage of data and has been expanded to include all sections of Cancer Care Services.

The radiation oncology team has had many research achievements in 2019, including:

- **Roger Allison** was formally recognised for his medical excellence with the official opening of the ARPANSA Roger Allison Radiotherapy Quality Centre in Yallambie, Victoria. Dr Allison is a highly regarded Radiation Oncology specialist both in Australia and internationally and has held the position of Chair of the ARPANSA Radiation Health and Safety Advisory Council for many years. This centre will also be used for a variety of partnership projects to facilitate both national and international research in medical imaging.
- **Benjamin Chua** (AI) and team were successful in obtaining an NHMRC grant for \$1 391 474.20 for the PICCOG: PARP and Immune Checkpoint inhibitor Combination for relapsed IDH-mutant high-grade Glioma project. In recognition of his research and teaching activities, he has also obtained his Associate professorship through the University of Queensland.
- **Medical Physics Research Group** received “Highly Commended” in Discovery and Innovation Research Award Category, MNHHS Research Excellence Awards.
- **Brett Hughes, Lizbeth Kenny, Matthew Burge, Ben Chua, Zarnie Lwin** (CI's) and team were successful in obtaining a MRFF Rapid Applied Research Translation Program grant for \$1,150,000 for the Centre for Personalised Analysis of Cancers (CPAC) project.
- **Dianna Binney**, “Radiotherapy quality assurance using statistical process control,” PhD conferred 24/7/2019
- **Tanya Kairn** won the, “Best Diagnostic Imaging Medical Physics,” poster prize at the Engineering and Physical Sciences in Medicine / Asia-Oceania Congress of Medical Physics.

Supervised Post-Graduate Research Students

Name <i>(RBWH staff in bold)</i>	Current Studies <i>(e.g. PhD, Masters etc.)</i> University <i>(duration)</i>	Research Project Title	Supervisors <i>(RBWH staff in bold)</i>
Trent Aland	PhD, QUT (2013-ongoing)	Quality assurance of complex radiotherapy treatments	Tanya Kairn , Jamie Trapp
Diana Binny	PhD, QUT (2015-2019)	Optimizing patient plan deliveries by characterizing treatment planning systems in radiotherapy	Scott Crowe , Tanya Kairn , Jamie Trapp
Rae Blades	MApp Sci, QUT (2016-2019)	A cost-effectiveness analysis of a silicone gel (StrataXRT®) for prophylaxis and management of Radiation Induced Skin Injury (RISI) in head and neck cancer patients	Patsy Yates, Ray Chan, Steven McPhail
Orrie Dancewicz	PhD, QUT (2014-ongoing)	Development and verification of a novel 3D dosimetry technique for tomotherapy.	Scott Crowe , Jamie Trapp, Tim Markwell
Joanna Kapeleris	PhD QUT (2018-2020)	Circulating tumour cells	Chamindie Punyadeera, Lizbeth Kenny
Timothy Liu	PhD	Oral Squamous Cell Carcinoma with intermediate risk factors	Martin Batstone, Benjamin Chua
Daniel McKnight	MSc, QUT (2019)	Radiobiological effectiveness weighted dose profiles for kilovoltage radiotherapy	Scott Crowe , Steven Sylvander, Sarah Maxwell
Johnny Morales	PhD, QUT (2011-2019)	Independent Monte Carlo analysis for stereotactic radiosurgery treatments	Scott Crowe, Jamie Trapp
Juliana Muller Bark	PhD, QUT (2018-ongoing)	Non-invasive biomarkers in glioblastoma	Benjamin Chua , Chamindie Punyadeera, Arutha Kulasinghe, Bryan Day, Rosalind Jeffree
Samuel Peet	PhD, QUT (2016-ongoing)	Out-of-field dose in contemporary radiation therapy	Scott Crowe , Tanya Kairn , Jamie Trapp
James Rijken	PhD, QUT (2017-ongoing)	Dosimetric accuracy for SABR spine radiotherapy treatments	Scott Crowe , Tanya Kairn , Jamie Trapp, Konstantin Momot
Jemma Walsh (nee Devereaux)	Masters, QUT (2017-ongoing)	DIBH (Deep Inspiration Breath Hold)-BREAST Trial. Breath Hold Respiratory Endurance and Spirometry Training	Lisa Nissin, Cathy Hargrave , Julie Burbery, Gregory Rattray
Rachael Wilks	PhD, QUT (2019-ongoing)	Improving brachytherapy treatments with 3D printing	Scott Crowe , Tanya Kairn , Jamie Trapp, Mia Woodruff
Liting Yu	PhD, QUT (2017-ongoing)	Developing new methods of dose evaluation for VMAT patient specific plans	Scott Crowe , Jamie Trapp , Tanya Kairn , Christian Langton
Mohammed Atiah Zahrani	Masters, QUT (2019)	3D printing of radiotherapy phantoms	Scott Crowe , Paul Charles

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

Name <i>(RBWH Staff in bold)</i>	Type of Position	Research Program	Affiliated University/ies
Paul Charles	Adjunct Associate Professor	Medical Physics	QUT (2015-current)
Benjamin Chua	Associate Professor UQ, Clinical Associate QIMR, Honorary Associate University of Sydney	Radiation Oncology	QIMR, University of Sydney, UQ
Scott Crowe	Adjunct Associate Professor	Medical Physics	QUT (2015-current)
Allison Dry	RT R&D Co-ordinator	Radiation Therapy	Queensland Health
Jennifer Edmunds	Clinical Trial Co-ordinator	Radiation Oncology	Queensland Health
Catriona Hargrave	State-wide RT Research Fellow. Joint appointment with QUT (<i>School of Clinical Sciences, Faculty of Health</i>)	Radiation Oncology/Radiation Therapy	QUT
Tanya Kairn	Adjunct Associate Professor	Medical Physics	QUT (2013-current)
Jacqui Keller	Manager, Clinical Trials	Radiation Oncology	Queensland Health
Trang Le	Clinical Trial Co-ordinator	Radiation Oncology	Queensland Health
Rob McDowall	Radiation Therapist Consultant	Radiation Oncology/Radiation Therapy	Queensland Health

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

Name <i>(RBWH Staff in bold)</i>	Type of Position	Research Program	Affiliated University/ies
Charmaine Micklewright	Research Assistant	Radiation Oncology	Queensland Health
Elise Obereigner	Research Assistant	Radiation Therapy	Herston Biofabrication Institute (2019–current)
Michelle Ralston	Advanced Radiation Therapist	Radiation Oncology/Radiation Therapy	Queensland Health
Lee Tripcony	Principal Scientist Statistics	Radiation Oncology/Statistics	Queensland Health
Christopher Walsh	RT R&D Co-ordinator	Radiation Therapy	Queensland Health

Current RBWH Research Group / Department Led Research Activity

RBWH Research Group/Department Led Researchers <i>(RBWH staff in bold)</i>	Collaborative Researchers and Others <i>(RBWH staff in bold)</i>	Research Project Title
Rae Blades/Ray Chan	Melissa Doolan	A cost-effectiveness analysis of a silicone gel (StrataXRT®) for prophylaxis and management of Radiation Induced Skin Injury (RISI) in head and neck cancer patients
Philip Chan	Paul Thomas (<i>HIRF</i>), Robyn Cheuk , Michelle Grogan , Graeme Dickie	Prognostic Value of Assessing Hypoxia in Tumours Using 18FMISO PET During a Course of Radiation Therapy – Proof of Concept Study
Benjamin Chua	Rosalind Jeffree , Chamindie Punyadeera, Zarnie Lwin , Juliana Muller Bark, Yunxia Wan, Arutha Kulasinghe, Xi Zhang, Kai Tang, Bryan Day (<i>QIMR</i>)	The use of non-invasive biomarkers in glioblastoma: A pilot study
Benjamin Chua	Zarnie Lwin , Bryan Day (<i>QIMR</i>)	Using molecular-guided PET/MRI imaging to target hypoxia in glioblastoma: A preclinical study to identify novel pathways and define molecular signatures associated with hypoxia and poor patient outcome
Benjamin Chua	Tristan Shaw	Diagnostic performance of 18-fludeoxyglucose positron emission tomography (FDG-PET) in evaluation of glioma
Emilie Croisier	Judy Bauer, Teresa Brown, Alana Morrissy, Alice Grigg , Philip Chan , Jeffrey Goh	Nutritional outcomes of gynae-oncology patients undergoing pelvic radiotherapy: understanding the patient experience and dietary fibre recommendations for symptom management
Scott Crowe	Paul Charles , Elise Obereigner , Rachael Wilks , Lee Heseltine , Graeme Dickie , Catherine Bettington , Philip Chan , Steven Sylvander , Tanya Kairn	Improving radiation oncology with 3D printing and Biofabrication
Scott Crowe	Tanya Kairn , Katie McMahon (<i>HIRF</i>), Louise Campbell (<i>HIRF</i>), Clare Berry (<i>HIRF</i>)	Characterisation of anatomical variations in the central nervous system
Graeme Dickie	Philip Chan , Rachael Wilks	Pulse Dose Rate Brachytherapy for cervix cancer, Royal Brisbane and Women's Hospital review
Alice Grigg	Catriona Hargrave	Retrospective evaluation of cardiac reduction between free-breathing (FB) and deep inspiration breath-hold (DIBH) radiation therapy for left-sided breast cancer patients
Rosalind Jeffree (RBWH)	Michael Fay (<i>NMH</i>), Jennifer Martin (<i>UON</i>), Paul Thomas (<i>HIRF</i>), Stephen Rose (<i>CSIRO</i>), Nicholas Dowson (<i>CSIRO</i>)	Evaluation of the role of valproate in the treatment of high grade glioma
Tanya Kairn	Scott Crowe , Rachael Wilks , Nancy Yu , Craig Lancaster	In vivo monitoring of total skin electron dose using optically stimulated luminescence dosimeters
Lizbeth Kenny	Sarju Vasani (<i>RBWH</i>)	A Pilot Study of CXCR4 PET for nodal staging of resectable mucosal head and neck Squamous cell carcinoma (HNSCC), including correlation with histopathology immunohistochemistry, sputum and Circulating Tumour Cells
Charles Lin	Benjamin Chua , Lizbeth Kenny , Michelle Nottage , Brett Hughes , Michele Teng, Paul Thomas	A prospective study investigating the efficacy and toxicity of definitive chemo-radiation and immunotherapy (CRIO) in locally and / or regionally advanced cutaneous squamous cell carcinoma

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

RBWH Research Group/Department Led Researchers <i>(RBWH staff in bold)</i>	Collaborative Researchers and Others <i>(RBWH staff in bold)</i>	Research Project Title
Charles Lin	Charles Lin, Megan Carroll, Ryan Somerville, Sarah Grigg	Carcinoma of Head and Neck with Perineural spread: Outcomes After Skull Base Surgery and Adjuvant Radiotherapy
Jasmine Meaghan (SPP), Catherine Bettington, Rob McDowall	Cathy Hargrave, Allison Dry, Jemma Walsh (nee Devereaux)	What anatomical sites will benefit most from contrast-enhanced computed tomography in Radiation Therapy Planning? A review of current literature and standards of practice
Anthony Pagidas, Adrian Celati	Jemma Blyth, Michelle Grogan, Allison Dry, Catriona Hargrave	A Retrospective examination of changes in breast seroma volume and the feasibility of implementing simultaneous integrated boost in the treatment of breast cancer
Kate Stewart	Molly Mee (<i>QUT</i>), Marika Lathouras, Dr Catriona Hargrave	Evaluation of a Deformable Image Registration Quality Assurance Tool for Head and Neck patients in the MIM Maestro System
Kate Stewart	Amelia Brinks (<i>QUT</i>), Dr Catriona Hargrave	Comparison of Dose Estimation Methods utilising Cone Beam CT images of patients receiving Radiation Therapy to Prostate and Head& Neck regions
Christopher Walsh, Richelle Hopkinson	Dr Cathy Hargrave, Allison Dry	Retrospective analysis of Catalyst reference image and radiographically defined radiotherapy treatment isocentres
Jemma Walsh (nee Devereaux)	Jemma Blyth, Elena Blyth, Gregory Rattray, Catriona Hargrave, Lisa Nissin, Julie Burbery	DIBH (Deep Inspiration Breath Hold)-BREaST Trial. Breath Hold Respiratory Endurance and Spirometry Training

Collaborative Research Activity involving RBWH Research Group / Department

Collaborative Led Researchers	RBWH Researchers and Others <i>(RBWH staff in bold)</i>	Research Project Title
Hao-Wen Sim	Helen Wheeler, Zarnie Lwin (<i>CCS DMO</i>), Kathryn Field, Benjamin Chua (<i>CCS DRO</i>), David Espinoza, Michael Buckland, Kimberly Kaufman	PICCOG: PARP and Immune Checkpoint inhibitor Combination for relapsed IDH-mutant high-grade Glioma
Catriona Hargrave	Alice Grigg (<i>CCS DRO</i>), Jemma Walsh (<i>CCS DRO</i>)	A multi-centre post-implementation review of the deep inspiration breath-hold (DIBH) technique for left-sided breast cancer radiation therapy
Jürgen Götz (<i>UQ Queensland Brain Institute</i>)	Benjamin Chua (<i>CCS DRO</i>), Scott Crowe (<i>CCS DRO</i>), Rob McDowall (<i>CCS DRO</i>)	Therapeutic Ultrasound for the Treatment of Brain Disorders
Henry Marshall (<i>TPCH</i>)	Benjamin Chua (<i>CCS DRO</i>), Luke Nicholls (<i>CCS DRO</i>), Rishendren Naidoo (<i>TPCH</i>), Katrina Hopcraft (<i>TPCH</i>)	CT screening for lung cancer in patients with chronic obstructive pulmonary disease
Peter Gorayski (<i>Adelaide</i>)	Ben Chua (<i>CCS DRO</i>), Charles Lin (<i>CCS DRO</i>), James Jackson (<i>ICON Gold Coast</i>), Michael Venness (<i>Westmead</i>)	Radiotherapy for early stage skin cancer
Danny Rischin (<i>PMCC</i>)	Charles Lin (<i>CCS DRO</i>), Brett Hughes (<i>CCS MO</i>)	Phase III trial of postoperative radiotherapy with or without REGN2810 in high risk cutaneous squamous cell carcinoma of the head and neck (cSCCHN)
Stephen Ackland, (<i>Calvary Mater Newcastle Hospital</i>)	Mathew Burge (<i>CCS MO</i>), Graeme Dickie (<i>CCS DRO</i>)	A randomised, placebo-controlled phase II trial of simvastatin in addition to standard chemotherapy and radiation in preoperative treatment for rectal cancer (SPAR)
Sherene Loi (<i>PMCC</i>)	Robyn Cheuk (<i>CCS DRO</i>), Michelle Grogan (<i>CCS DRO</i>)	TROG 17.05 A randomised phase II trial comparing the efficacy of single fraction or multi-fraction SABR (Stereotactic ablative body radiotherapy) with Atezolizumab in patients with advanced Triple negative breast Cancer (AZTEC)
Michael D. Jenkinson PhD (<i>University of Liverpool</i>)	Catherine Bettington (<i>CCS DRO</i>)	ROAM – TROG 15.02 Radiation versus Observation following surgical resection of Atypical Meningioma: a randomised controlled trial
Arjun Sahgal (<i>CTG</i>)	Benjamin Chua (<i>CCS DRO</i>)	SC24: TD 17.06A Phase III Randomized Feasibility Study Comparing Stereotactic Body Radiotherapy (SBRT) Versus Conventional Palliative Radiotherapy (CRT) For Patients With Spinal Metastases – S Siva and M Foote

Collaborative Research Activity involving RBWH Research Group / Department (cont)

Collaborative Led Researchers	RBWH Researchers and Others <i>(RBWH staff in bold)</i>	Research Project Title
Vincent Grégoire <i>(EORTC)</i>	Lizbeth Kenny <i>(CCS DRO)</i>	NIMORAL – TROG 14.03 (1219-ROG-HNCG) A blind randomized multicenter study of accelerated fractionated chemo-radiotherapy with or without the hypoxic cell radiosensitizer nimorazole (Nimoral), using a 15 gene signature for hypoxia in the treatment of squamous cell carcinoma of the head and neck
Danny Rischin <i>(PMCC)</i>	Lizbeth Kenny <i>(CCS DRO)</i>	HPV – TROG 12.01 A randomised trial of Weekly Cetuximab And Radiation Versus Weekly Cisplatin and Radiation in Good Prognosis Locoregionally Advanced HPV-Associated Oropharyngeal Squamous Cell Carcinoma
Chamindie Punyadeera <i>(QUT)</i>	Lizbeth Kenny <i>(CCS DRO)</i>	SPIT Study A simple saliva test to diagnose head and neck cancer at an early stage – head and neck cancer detection is a spitting distance away
Rajiv Khanna <i>(QIMR)</i>	Lizbeth Kenny <i>(CCS DRO)</i>	P2191 Development of an Adoptive T Cell Therapy for HPV-Associated Malignancies
David Pryor	Charles Lin <i>(CCS DRO)</i>	TROG 16.03: A multi stage multi centre international randomised trial of Conventional care Or Radioablation (stereotactic body radiotherapy) for Extra-cranial oligometastatic disease in lung, breast and prostate cancer (CORE)
Shankar Siva	Charles Lin <i>(CCS DRO)</i>	TROG 15.03 Focal Ablative STereotactic RADiosurgery for Cancers of the Kidney – A Phase II Clinical Trial (FASTRACK II)
Shankar Siva	Catherine Bettington <i>(CCS DRO)</i>	TROG 13.01 Stereotactic Ablative Fractionated Radiotherapy versus Radiosurgery for Oligometastatic Neoplasia to the Lung: A Randomised Phase II Trial (SAFRON II)
Scott Williams and Paul Nguyen <i>(NHMRC)</i>	Philip Chan <i>(CCS DRO)</i>	ENZARAD Randomised phase 3 trial of enzalutamide in androgen deprivation therapy with radiation therapy for high risk, clinically localised, prostate cancer
Kumar Gogna <i>(RO Mater)</i>	Catherine Bettington <i>(CCS DRO)</i>	SPLIT COURSE A single arm, prospective Phase II study of Split-Course Pelvic Radiotherapy for Locally Progressive, Castrate Resistant Prostate Cancer
Margot Lehman <i>(PAH)</i>	Philip Chan <i>(CCS DRO)</i>	P LUNG – TROG 11.03 A randomised phase III trial of High Dose Palliative Radiotherapy (HDPRT) versus concurrent Chemotherapy HDPRT (C-HDPRT) in patients with good performance status, locally advanced/small volume metastatic NSCLC not suitable for radical chemo-radiotherapy
Peter Graham <i>(SGH)</i>	Robyn Cheuk <i>(CCS DRO)</i>	STARS – TROG 08.06 A randomised comparison of anastrozole commenced before and continued during adjuvant radiotherapy for breast cancer versus anastrozole and subsequent anti-oestrogen therapy delayed until after radiotherapy. (STARS – Study of Anastrozole and Radiotherapy Sequencing)
Boon Chua <i>(PMCC)</i>	Lizbeth Kenny <i>(CCS DRO)</i>	DCIS – TROG 07.01 A randomised phase III study of radiation doses and fractionation schedules in non-low risk ductal carcinoma in situ (DCIS) of the breast
L. Mileshkin <i>(PMCC)</i>	Robyn Cheuk <i>(CCS DRO)</i>	PORTEC – 3 – TROG 08.04 ANZGOG A Randomised phase III trial comparing concurrent chemoradiation and adjuvant chemotherapy with pelvic radiation alone in high risk and advanced stage endometrial carcinoma
Maria Pearse <i>(Auckland City Hospital)</i>	Charles Lin <i>(CCS DRO)</i>	RAVES – TROG 08.03 Radiotherapy Adjuvant versus Early Salvage. A phase III multi-centre randomised trial comparing adjuvant radiotherapy (RT) with early salvage RT in patients with positive margins or extraprostatic disease following radical prostatectomy
Michael Poulsen <i>(RO Mater)</i>	Graeme Dickie <i>(CCS DRO)</i>	MP3 – TROG 09.03 A Phase II Efficacy Study of Chemo-radiotherapy in PET Stage II and III Merkel Cell Carcinoma of the Skin
Gail Ryan <i>(PMCC)</i>	Roger Allison <i>(CCS DRO)</i>	TROG 06.01 Primary chemotherapy with Temozolomide vs. Radiotherapy in patient's with Low Grade Gliomas after stratification for genetic 1P loss: A phase III Study
Australasian Lung Cancer Trials Group	Brett Hughes <i>(CCS)</i> , Phillip Chan <i>(CCS)</i>	NIVORAD – A randomised phase 2 trial of nivolumab and stereotactic ablative body radiotherapy in advanced non-small cell lung cancer, progressing after first or second line chemotherapy

Research Awards and Achievements

Recipient <i>(RBWH staff in bold)</i>	Award	Event
Roger Allison	World-class research and education centre, "Roger Allison Radiotherapy Quality Centre", opened 15 March 2019	Australian Radiation Protection and Nuclear Safety Agency (ARPANSA)
Radiation Oncology Medical Physics Research Group	"Highly Commended" in Discovery and Innovation Research Award Category	MNHHS Research Excellence Award
Brett Hughes, Lizbeth Kenny, Matthew Burge, Ben Chua, Zarnie Lwin (CI's) and team	MRFF Rapid Applied Research Translation Program grant for \$1,150,000	Centre for Personalised Analysis of Cancers (CPAC) project
Dianna Binney	PhD conferred 24/7/2019	Radiotherapy quality assurance using statistical process control
Tanya Kairn	Best Diagnostic Imaging Medical Physics Poster Prize	Engineering and Physical Sciences in Medicine / Asia-Oceania Congress of Medical Physics, Perth, Australia

Research Grants

Investigators <i>(RBWH staff in bold)</i>	RBWH Research Groups/ Departments	Project Title	Granting Body	Total of funds awarded	Funds used in 2019	Years
Hao-Wen Sim, Helen Wheeler, Zarnie Lwin , Kathryn Field, Benjamin Chua , David Espinoza, Michael Buckland, Kimberley Kaufman	CCS DRO, DMO	PICCOG: PARP and Immune Checkpoint inhibitor Combination for relapsed IDH-mutant high-grade Glioma	NHMRC	\$1,391,472.20	\$0	2019-2023
PI: Erik Thompson; RBWH CCS CIs: Brett Hughes, Lizbeth Kenny, Matthew Burge, Benjamin Chua, Zarnie Lwin	CCS DRO, DMO	Centre for Personalised Analysis of Cancers (CPAC)	MRFF Rapid Applied Research Translation Program	\$1,150,000	\$0	2/9/2019-30/6/2021
Chamindie Punyadeera, Lizbeth Kenny , Jean Paul Thiery, Brett Hughes , Majid Warkiani, Arutha Kulasinghe	CCS DRO, DMO	Circulating tumour cells: Clinical applications in head and neck cancers	Cancer Australia	\$599,756	\$199,919	2018-2020
Scott Crowe, Paul Charles, Elise Obereigner, Rachael Wilks, Lee Heseltine, Graeme Dickie, Catherine Bettington, Philip Chan, Steven Sylvander, Tanya Kairn, Glenn Kennedy	CCS DRO	Improving radiation oncology with 3D printing and Biofabrication	Herston Biofabrication Institute program grant	\$515,000	\$171,667	2019-2021
Chamindie Punyadeera, Lizbeth Kenny , Chris Perry, Ken O'Byrne, Ian Vela, Arutha Kulasinghe	CCS DRO	Circulating tumour cells in head and neck cancer	Garnette Passe and Rodney Williams Memorial Foundation	\$239,988	\$119,994	2018-2020
Charles Lin	CCS DRO	A prospective study investigating the efficacy and toxicity of definitive chemoradiotherapy and immunotherapy (CRIO) in locally and / or regionally advanced cutaneous squamous cell carcinoma	Astra Zeneca	\$211,000.15	\$69,630	2017-2021
Marina Reeves, Sandra Hayes, Wendy Denmark-Wahnefried, Jennifer Muller, Elizabeth Eakin, Lizbeth Kenny , Catherine Shannon	CCS DRO	Optimising Survivorship: a pilot study evaluating the feasibility, safety and preliminary efficacy of an exercise and dietary intervention for women with metastatic breast cancer	National Breast Cancer Foundation	\$197,179	\$49,294.75	2017-2020
Arutha Kulasinghe, Ken O'Byrne, Chamindie Punyadeera, Colleen Nelson, Riccardo Dolcetti, Brett Hughes , Erik Thompson, Lizbeth Kenny	CCS DRO	Can liquid biopsy provide predictive biomarkers for checkpoint inhibitor response in non-small cell lung cancer	Translational Research Institute Spore grant	\$80,000	\$80,000	2019

Research Grants (cont)

Investigators <i>(RBWH staff in bold)</i>	RBWH Research Groups/ Departments	Project Title	Granting Body	Total of funds awarded	Funds used in 2019	Years
Graeme Dickie	CCS DRO	QCOG Cancer Clinical Trial Data Manager Grant	Queensland Clinical Oncology Group	\$71,000	\$71,000	2019
Benjamin Chua , Bryan Day, Stephen Rose, Paul Thomas , Rosalind Jeffree , Yi-Chieh Lim, Po-ling Inglis , Zarnie Lwin , Jacqui Keller	CCS DRO	Using molecular-guided PET/MRI Using molecular-guided PET/MRI imaging to target hypoxia in glioblastoma: A preclinical study to identify novel pathways and define molecular signatures associated with hypoxia and poor patient outcome	HIRF seed research funding	\$66,498	\$0	2017-2019
Lizbeth Kenny	CCS DRO	CXCR4 PET for nodal staging of resectable mucosal head and neck squamous cell carcinoma (HNSCC)	HIRF seed research funding	\$56,017.50	\$0	2017-2019
Lizbeth Kenny , Chamindie Punyadeera, Brett Hughes , Martin Batstone, Kai Tang	CCS DRO, DMO	Salivary miRNA Panel to Detect Oral Cancer and Oropharyngeal Cancers Early	RBWH Foundation	\$40,000	\$40,000	2019
Samuel Peet	CCS DRO	Out-of-field dose in Contemporary Radiation Therapy	RBWH	\$38,082.52	\$38,082.52	2019
Nancy Yu	CCS DRO	Developing new methods of dose evaluation for IMRT patient specific QA	RBWH	\$38,082.52	\$38,082.52	2019
Erik Thompson, Elizabeth Williams, Ian Vela, Tony Kenna, Cameron snell, Laura Bray, Riccardo Dolecetti, Bryan Day, Benjamin Chua , Zarnie Lwin , Rajiv Khanna	CCS DRO, DMO	Immune Cell Analysis in Tumouroids Towards Modelling Immunotherapy	BDHP	\$17,500	\$17,500	2019-2020
Jennifer Edmunds	CCS DRO	ANZUP Trial/Study Co-ordinator Scholarship	ANZUP	\$650	\$650	2019

2019 Research Publications

Journal Articles

- Asena A, Nilsson S, Smith ST, **Kairn T**, **Crowe SB**, Trapp JV. A method for obtaining three-dimensional measurements of HDR brachytherapy dose distributions using Fricke gel dosimeters and optical computed tomography. *Australas Phys Eng Sci Med*. 2019 Mar;42(1):221-226. doi: 10.1007/s13246-018-0715-y
- Binny D, Aland T, Achibald-Heeren BR, Trapp JV, **Kairn T**, **Crowe SB**. A multi-institutional evaluation of Machine Performance Check (MPC) system on treatment beam output and symmetry using Statistical Process Control. *J App Clin Med Phys*. 2019 Mar;20(3):71-80. doi: 10.1002/acm2.12547
- Binny D, **Lancaster CM**, **Kairn T**, Trapp JV, **Crowe SB**. Radiotherapy quality assurance using statistical process control. *IFMBE Proc*. 2019 Mar;68(3):437-442. doi: 10.1007/978-981-10-9023-3_78
- Chan RJ, Blades R, Jones L, Downer TR, **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 patient with head and neck cancer. *Radiother Oncol*. 2019 Oct; 139:72-78. doi: 10.1016/j.radonc.2019.07.014
- Chua B**, Jackson JE, **Lin C**, Veness MJ. Radiotherapy for early non-melanoma skin cancer. *Oral Oncol*. 2019 Sep 28; 98:96-101. doi: 10.1016. [Epub ahead of print]
- Crowe SB**, **Kairn T**. Calibration seed sampling for iodine-125 prostate brachytherapy. *IFMBE Proc*. 2019 Mar;68(3):459-462. doi: 10.1007/978-981-10-9023-3_83
- Crowe SB**, **Sylvander S**, **Kairn T**. Radiotherapy dose measurements using a fluorescing quinine solution. *IFMBE Proc*. 2019 Mar;68(3):545-548. doi: 10.1007/978-981-10-9023-3_99
- Dowthwaite S, Panizza B, O'Neill J, Porceddu S, Jackson JE, **Chua B**. Outcomes of primary trans-oral surgical management of early tonsillar squamous cell carcinoma with risk-adapted adjuvant radiotherapy. *Aust J Otolaryngol* 28 Feb 2019; 2:7
- Kairn T**, **Crowe SB**. Application of retrospective data analysis to clinical protocol design: Can the potential benefits of breath-hold techniques for breast radiotherapy be assessed without testing on patients? *Australas Phys Eng Sci Med*. 2019 Mar;42(1):227-233. doi: 10.1007/s13246-019-00725-w
- Kairn T**, **Crowe SB**. Retrospective analysis of breast radiotherapy treatment plans: Curating the “non-curved”. *Journal of Medical Imaging and Radiation Oncology*. 2019 Aug; 63(4):517-529. doi: 10.1111/1754-9485.12892

Journal Articles (cont)

11. **Kairn T, Crowe SB, Peet SC.** Linac leakage dose received by patients treated using non-coplanar radiotherapy beams. *IFMBE Proc.* 2019 Mar;68(3):549-551. doi: 10.1007/978-981-10-9023-3_100
12. **Kairn T, Peet SC, Yu L, Crowe SB.** Long-term reliability of optically stimulated luminescence dosimeters. *IFMBE Proc.* 2019 Mar; 68(3):561-564. doi: 10.1007/978-981-10-9023-3_103
13. **Kairn T, Stephens H, Crowe SB, Peet S.** Optically stimulated luminescence dosimeters as an alternative to radiographic film for performing head-wrap linac leakage measurements. *IFMBE Proc.* 2019 Mar;68(3):553-555. doi: 10.1007/978-981-10-9023-3_101
14. **Kairn T, Zolfaghari S, Papworth D, West M, Schlect D, Crowe SB.** Stereotactic radiosurgery for multiple brain metastases: A dose-volume study. *IFMBE Proc.* 2019 Mar;68(3):443-445. doi: 10.1007/978-981-10-9023-3_79
15. **Khoei S, West M, Kairn T.** Measurement of percentage depth-dose profiles in very small fields. *IFMBE Proc.* 2019 Mar;68(3):557-560. doi: 10.1007/978-981-10-9023-3_102
16. **Kulasinghe A, Hughes BGM, Kenny L, Punyadeera C.** An update: circulating tumor cells in head and neck cancer. *Expert Rev Mol Diagn.* 2019 Dec;19(12):1109-1115. doi: 10.1080/14737159.2020.1688145. Epub 2019 Nov 7
17. **Kulasinghe A, Kapeleris J, Kenny L, Warkiani M, Vela I, Thiery J, O'Byrne K, Punyadeera C.** Abstract 1333: Isolation, characterization and expansion of circulating tumor cells in solid cancers. *Cancer Res July 1 2019 (79) (13 Supplement)* pp. 1333; DOI: 10.1158/1538-7445.AM2019-1333
18. **Milewski C, Peet SC, Sylvander SR, Crowe SB, Kairn T.** Optimising a radiotherapy optical surface monitoring system to account for the effects of patient skin contour and skin colour. *IFMBE Proc.* 2019 Mar;68(3):451-454. doi: 10.1007/978-981-10-9023-3_81
19. **Moroney LB, Helios J, Ward EC, Crombie J, Burns CL, Yeo SQ, Pelecanos A, Spurgin AL, Blake C, Kenny L, Chua B, Hughes BGM.** Radiotherapy for cutaneous head and neck cancer and parotid tumours: a prospective investigation of treatment-related acute swallowing and toxicity patterns. *Support Care Cancer.* 2019 Feb;27(2):573-581. doi: 10.1007/s00520-018-4352-5. Epub 2018 Jul 17
20. **Moroney LB, Ward EC, Helios J, Crombie J, Burns CL, Blake C, Comans T, Chua B, Kenny L, Hughes BGM.** Evaluation of a speech pathology service delivery model for patients at low dysphagia risk during radiotherapy for HNC. *Support Care Cancer.* 2019 Jul 27. doi: 10.1007/s00520-019-04992-x
21. **Müller Bark J, Kulasinghe A, Chua B, Day BW, Punyadeera C.** Circulating biomarkers in patients with glioblastoma. *Br J Cancer.* 2019 Oct 31. doi: 10.1038/s41416-019-0603-6
22. **Ratnayake G, Shanker M, Roberts K, Mason R, Hughes BGM, Lwin Z, Jain V, O'Byrne K, Lehman M, Chua B.** Prior or concurrent radiotherapy and nivolumab immunotherapy in non-small cell lung cancer. *Asia Pac J Clin Oncol.* 2019 Nov 12. doi: 10.1111/ajco.13242
23. **Rijken J, Bhat M, Crowe S, Kairn T, Trapp J.** Linear accelerator bunker shielding for stereotactic radiotherapy. *Phys Med Biol.* 2019 Nov; 64(21): 21NT04. doi: 10.1088/1361-6560/ab4916
24. **Rijken J, Bhat M, Crowe S, Trapp J.** Conservatism in linear accelerator bunker shielding. *Australasian Physical and Engineering Sciences in Medicine.* 2019 Sep; 42(3):781-787. doi: 10.1007/s13246-019-00782-1
25. **Rijken J, Kairn T, Crowe S, Trapp J.** Effect of arc length on skin dose from hypofractionated volumetric modulated arc radiotherapy treatments of the lung and spine. *Med Dosim.* 2019 Oct;44(4):309-314. doi: 10.1016/j.meddos.2018.11.002
26. **Rijken J, Schachenmayr H, Crowe S, Kairn T, Trapp J.** Distributive quality assurance and delivery of stereotactic ablative radiotherapy treatments amongst beam matched linear accelerators: A feasibility study. *Journal of Applied Clinical Medical Physics.* 2019 Apr 4; 20(4). pii: 99-105. doi: 10.1002/acm2.12567
27. **Shaw TB, Jeffree RL, Thomas P, Goodman S, Debowski M, Lwin Z, Chua B.** Diagnostic performance of 18F-fluorodeoxyglucose positron emission tomography in the evaluation of glioma. *J Med Imaging Radiat Oncol.* 2019 Aug 1. doi: 10.1111/1754-9485.12929
28. **Smith S, Boase N, Masters K, Hosokawa K, Asena A, Crowe S, Kairn T, Trapp J.** A very low diffusion Fricke gel dosimeter with functionalised Xylenol Orange-PVA (XOPVA). *Phys Med Biol* 2019 Oct; 64:205017. doi: "10.1088/1361-6560/ab430c
29. **Tang KD, Baeten K, Kenny L, Frazer IH, Scheper G, Punyadeera C.** Unlocking the Potential of Saliva-Based Test to Detect HPV-16-Driven Oropharyngeal Cancer. *Cancers (Basel).* 2019 Apr 3;11(4). pii: E473. doi: 10.3390/cancers11040473
30. **Turner J, Yates P, Kenny L, Gordon LG, Burmeister B, Hughes BGM, McCarthy AL, Perry C, Chan RJ, Paviour A, Skerman H, Batstone M, Mackenzie L.** The ENHANCES study: a randomised controlled trial of a nurse-led survivorship intervention for patients treated for head and neck cancer. *Support Care Cancer.* 2019 Dec;27(12):4627-4637 Epub 2019 Apr 2. doi: 10.1007/s00520-019-04748-7
31. **Yu L, Kairn T, Crowe SB.** Retrospective audit of patient specific quality assurance results obtained using helical diode arrays. *IFMBE Proc.* 2019 Mar;68(3):447-450. doi: 10.1007/978-981-10-9023-3_80
32. **Yu L, Kairn T, Trapp J, Crowe SB.** A modified gamma analysis method for dose distribution comparisons. *Journal of Applied Clinical Medical Physics.* 2019 Jul; 20(7):193-200. doi: 10.1002/acm2.12606
33. **Yu L, Tang TLS, Cassim N, Livingstone A, Cassidy D, Kairn T, Crowe SB.** Analysis of Dose Comparison Techniques for Patient Specific Quality Assurance in Radiation Therapy. *J Appl Clin Med Phys.* 2019 Nov; 20(11): 189-198. doi: 10.1002/acm2.12726
34. **Zhang P, Raju J, Ullah MA, Au R, Varelias A, Gartlan KH, Olver SD, Samson LD, Sturgeon E, Zomerdijk N, Avery J, Gargett T, Brown MP, Coin LJ, Ganesamoorthy D, Hutchins C, Pratt GR, Kennedy GA, Morton AJ, Curley CI, Hill GR, Tey SK.** Phase I Trial of Inducible Caspase 9 T Cells in Adult Stem Cell Transplant Demonstrates Massive Clonotypic Proliferative Potential and Long-term Persistence of Transgenic T Cells. *Clin Cancer Res.* 2019 Mar 15;25(6):1749-1755. doi: 10.1158/1078-0432.CCR-18-3069. Epub 2019 Feb 14.

2019 Conference Presentations – Invited Speaker, Oral and Poster

Invited Speakers

1. **Blades R.** Cost-effectiveness and radiation dermatitis: A NUM's approach. *Cancer Nurses Society of Australia Annual Congress.* 20-22 June 2019. Melbourne, Australia
2. **Blades R.** StrataXRT "An ounce of prevention is worth a pound of cure". *Cancer Nurses Society of Australia Annual Congress.* 20-22 June 2019. Melbourne, Australia

Invited Speakers (cont)

3. **Charles P.** Overview of Herston Biofabrication Institute. Progress and Research in Medical Physics 28 June 2019. Sunshine Coast University Hospital
4. **Cheuk R.** Paediatric brachytherapy. Australasian Brachytherapy Group 28th Annual Scientific Meeting, Brisbane, Australia. February 2019
5. **Cheuk R.** Cranial Radiotherapy – Post treatment effect and Radionecrosis. Neurosurgical Society of Australasia paediatric Neuro-oncology CPD workshop, Brisbane, Australia. March 2019
6. **Chua B.** Neuro-oncology for the Radiologist. Australia and New Zealand Society of Neuroradiology Annual Scientific Meeting. Adelaide, Australia. March 2019
7. **Crowe SB.** Personalized phantoms through 3D printing. ESTRO 38, 26 April 2019. Milan, Italy
8. **Crowe SB.** 3D printing of quality assurance phantoms. Progress and Research in Medical Physics 28 June 2019. Sunshine Coast University Hospital
9. **Kairn T.** Bulk retrospective analysis of radiotherapy treatment data: Looking back from the front of the pack. Engineering and Physical Sciences in Medicine/Asia-Oceania Congress of Medical Physics, Perth, Australia. 2019. 28-30 October 2019
10. **Kairn T.** Communicating risk from a Radiation Oncology perspective. ACPSEM Queensland Symposium. Brisbane, Australia. September 2019
11. **Kenny L.** A new guide to ethical principles for the use of AI in medicine. Key note speaker on behalf of RANZCR. Health Informatics Conference. Melbourne, Australia. August 2019
12. **Kenny L.** Artificial Intelligence in Healthcare. Health Informatics Society of Australia. Melbourne, Australia. February 2019
13. **Kenny L.** Australian Collaborative Networks Updates Overview QLD and MNHHS. National Particle Therapy Symposium. Brisbane, Australia. March 2019
14. **Kenny L.** Ethics of AI in Medicine. AI Machine Learning and Robotics in Healthcare Conference. Sydney, Australia. October 2019
15. **Kenny L.** Ethics of AI in Medicine. RANZCR Auckland, New Zealand. October 2019
16. **Kenny L.** Importance of Quality Assurance in IO: Lessons Learned from Radiation Oncology. Society of Interventional Oncology (SIO) Boston, Massachusetts. June 2019
17. **Kenny L.** Innovating Health Series; Artificial Intelligence. Health Informatics Society of Australia. Brisbane, Australia. March 2019
18. **Kenny L.** Medical machine learning – Australian healthcare in the age of artificial intelligence. General Practice Conference and Exhibition (GPCE) Sydney. May 2019
19. **Kenny L.** Potential Cure and the Concept of Oligo Metastatic Disease. TROG 31st Annual Scientific Meeting. Melbourne, Australia. March 2019
20. **Kenny L.** Radiobiology: sensitive and resistant tumours. European Congress of Interventional Oncology (ECIO) Netherlands. April 2019
21. **Kenny L.** Radiotherapy – ERB and SABR: The essentials of radiotherapy. TROG 31st Annual Scientific Meeting. Melbourne, Australia. March 2019
22. **Kenny L.** The CIRSE Quality Assurance System in IO – lessons learnt from Radiation Oncology. Asia Pacific Congress of International Oncology (APCIO). Kuala Lumpur. October 2019
23. **Kenny L.** The Importance of Quality Patient Care and Patient Pathways. TROG 31st Annual Scientific Meeting. Melbourne, Australia. March 2019
24. **Kenny L.** The role of radiotherapy, in the session on, Current management of metastatic lesions from breast cancer. Barcelona, Spain. September 2019
25. **Kenny L.** The State of Play. National Particle Therapy Symposium. Brisbane, Australia. March 2019
26. **Kenny L.** The Value of Particle Therapy to Australia. National Particle Therapy Symposium. Brisbane, Australia. March 2019
27. **Lathouras M.** “Dosimetric Implications in Radiation Therapy Planning & Treatment of Aeroform® (Tissue Expander system) Carbon Dioxide (CO₂) Filled Breast Implants.” Accuray Symposium 2019, The Westin, Perth, (25/05/2019).

Oral Presentations

1. **Blades R.** The Strata Trial Phase III RCT Findings. Cancer Nurses Society of Australia Annual Congress. 20-22 June 2019. Melbourne, Australia
2. Byrnes K, **Kairn T.** Comparison and verification of multiple radiotherapy TPS in modelling radiation transport through a metal spine implant in a water equivalent phantom. Engineering and Physical Sciences in Medicine / Asia-Oceania Congress of Medical Physics, Perth, Australia. 2019. 28-30 October 2019
3. **Chan S.** Does the external surface represent the tumour position in patients undergoing radiotherapy to the thorax/abdomen? Surfing the Ray Conference, Gold Coast, Queensland. November 2019
4. **Charles P.** The transition from novice to expert of a Radiation Oncology Medical Physicist performing radiation dosimetry. Engineering and Physical Sciences in Medicine / Asia-Oceania Congress of Medical Physics, Perth, Australia. 2019. 28-30 October 2019
5. **Crowe SB.** Improving radiation oncology with 3D printing & Biofabrication. Herston Biofabrication Institute Conference, Brisbane, Australia March 2019
6. **Crowe SB.** Particle therapy updated from the Australasian College of Physical Scientists & Engineers in Medicine. National Particle Therapy Symposium, Brisbane, Australia March 2019
7. **Crowe S, Kairn T, Sylvander S, Lancaster C.** Case study: the disappearing skull. Engineering and Physical Sciences in Medicine / Asia-Oceania Congress of Medical Physics, Perth, Australia. 2019. 28-30 October 2019
8. **Dickie G.** Cervix cancer treated by pulse dose rate brachytherapy. Australasian Brachytherapy Group Annual Scientific Meeting, Brisbane, Australia. February 2019
9. **Fogarty G.** Investigating the use of patient reported outcome measures for breast cancer patients. Surfing the Ray conference, Gold Coast, Queensland. November 2019
10. **Huang Y.** Adolescent and young adult patients' education strategies. Surfing the Ray conference, Gold Coast, Queensland. November 2019
11. **Kairn T.** Monte Carlo derived corrections for a non-water-equivalent brachytherapy applicator material. Australasian Brachytherapy Group Annual Scientific Meeting, Brisbane, Australia February 2019

Oral Presentations (cont)

12. **Kairn T, Peet S, Livingstone A.** Monte Carlo calculations of radiotherapy dose in “homogeneous” anatomy. Engineering and Physical Sciences in Medicine / Asia-Oceania Congress of Medical Physics, Perth, Australia. 2019. 28-30 October 2019
13. **Kairn T, Stephens H, Deans C.** Accuracy of optically stimulated luminescence dosimeter measurements of skin dose from high dose rate brachytherapy. Engineering and Physical Sciences in Medicine/Asia-Oceania Congress of Medical Physics, Perth, Australia. 2019. 28-30 October 2019
14. **Lathouras M.** “Dosimetric Implications in Radiation Therapy Planning & Treatment of Aeroform® (Tissue Expander system) Carbon Dioxide (CO₂) Filled Breast Implants.” ASMIRT/AACRT2019 Conference, Adelaide 28-31 March 2019
15. **Lathouras M.** The curious case of the invisible cranium. Surfing the Ray conference, Gold Coast, Queensland. November 2019
16. **Moloney T.** The evolution of breast tumour bed boost: a literature review. Surfing the Ray conference, Gold Coast, Queensland. November 2019
17. **Pagidas A.** A Retrospective Examination of Changes in Breast Seromas During Radiation Therapy. ASMIRT/AACRT2019 Conference, Adelaide 28-31 March 2019
18. **Stewart K.** Implementing Deformable Image Registration at the Royal Brisbane. ASMIRT/AACRT2019 Conference, Adelaide 28-31 March 2019
19. **Walsh C.** CATALYST™ : Implementing Surface Guided Radiation Therapy (SGRT) – The Royal Brisbane and Women’s Hospital experience. ASMIRT/AACRT2019 Conference, Adelaide 28-31 March 2019
20. **Wilks R.** Commissioning the Varian 3D Ring Applicator. Australasian Brachytherapy Group Annual Scientific Meeting, Brisbane, Australia February 2019.

Poster Presentations

1. **Blades R, Chan R, Yates P, McPhail S.** Cost-effectiveness of StrataXRT versus Sorbolene for radiodermatitis in head and neck cancer patients: a trial based economic evaluation. CNSA (Melb) June 2019
2. **Blades R, Chan R, Yates P, McPhail S.** Cost-effectiveness of StrataXRT versus Sorbolene for radiodermatitis in head and neck cancer patients: a trial based economic evaluation. Oncology Nursing Society conference (Anaheim USA) April 2019
3. **Charles P, Livingstone A, Kairn T, Crowe SB.** Clinical quality assurance of 3D printed patient specific radiotherapy devices. Engineering and Physical Sciences in Medicine / Asia-Oceania Congress of Medical Physics, Perth, Australia. 2019. 28-30 October 2019
4. **Crowe SB.** Optimal assay sizes for intraoperatively planned iodine-125 brachytherapy. Australasian Brachytherapy Group Annual Scientific Meeting, Brisbane, Australia. February 2019
5. **Crowe SB, Whittle E, Jones C, Kairn T.** Dosimeter selection for small field percentage depth dose and tissue-maximum-ratio measurements. ESTRO 38, April 2019
6. **Kairn T, Ikeda Y, West M, Schlect D, Crowe S,** “Retrospective review of brain dose from cranial stereotactic radiosurgery treatments of metastases” (e-poster), ESTRO 38, Milan, Italy, 2019
7. **Kairn T, Wilks R, Yu L, Crowe SB.** Monitoring total skin electron therapy using optically stimulated luminescence dosimeters. ESTRO 38. April 2019
8. **Kairn T, Berry C, Campbell L, McMahon K, Peet S, Crowe SB.** Appearance and minimisation of respiratory motion artefacts in thoracic MRI images of prone patients. Engineering and Physical Sciences in Medicine / Asia-Oceania Congress of Medical Physics, Perth, Australia. 2019. 28-30 October 2019
9. **Kairn T, Brown G, Choma K, Dawes J, Sylvander SR, Yin Y, Crowe SB.** Design and use of a modular system of 3D printed blocks to model heart and lung tissue in a breast radiotherapy phantom. Engineering and Physical Sciences in Medicine / Asia-Oceania Congress of Medical Physics, Perth, Australia. 2019. 28-30 October 2019
10. **Kairn T, Crowe SB.** Electron radiotherapy and gas-filled temporary tissue expanders. Engineering and Physical Sciences in Medicine / Asia-Oceania Congress of Medical Physics, Perth, Australia. 2019. 28-30 October 2019
11. **Obereigner E.** Constructing patient-specific 3D printed mouth-pieces: a proof of concept study. Herston Biofabrication Institute Conference, Brisbane, Australia. March 2019
12. **Roberts NA, Cubitt A, Western R, Keller J, Ives A, Wyld D.** Patient Understanding of Research in an Oncology Setting. ACTA International Clinical Trials Conference, Sydney, Australia. 2-5 October 2019
13. **Wilks R.** 3D printed patient specific vaginal moulds for brachytherapy. Herston Biofabrication Institute Conference, Brisbane, Australia. March 2019.

Other communications and outputs

1. **Blades R.** Cost-effectiveness and radiation dermatitis: A NUM’s approach. RBWH Nursing Ground Rounds June 2019
2. **Blyth J.** State-wide Radiation Therapy Research Videoconference series: Breast PROMS/PREMS. 09/07/2019
3. **Crowe S.** BIOFAB Update. Cancer Care Services Research Retreat, October 2019
4. **Dry A.** ASMIRT Qld Branch Careers & Professional Development Seminar: Graduate Preparation Series. 27/07/2019
5. **Dry A.** Developments in Radiation Therapy. Allied Health Head and Neck Peer Education Series: State-wide Videoconference (03/04/2019)
6. **Dry A, Bryant D, Walsh J, Walsh C, Grigg A, Pagidas A, Moloney T, Fogarty G, Vidler K, Smith L.** Cancer Preceptorship for Primary Health Care Providers Program, Cancer Care Services, RBWH. 20/07/2019
7. **Mee M (Stewart K PI).** ASMIRT Student Papers Presentation Night: Russell Strong Auditorium, PAH: Evaluation of a Deformable Image Registration Quality Assurance Tool for Head and Neck patients in the MIM Maestro System. 15/10/2019
8. **Obereigner E.** 3D Printing at Cancer Care Services RBWH. Australian Society of Medical Imaging & Radiation Therapy (ASMIRT) Qld. Branch Meeting (04/06/2019)
9. **Stewart K.** Mee M (QUT): “Evaluation of a Deformable Image Registration Quality Assurance Tool for Head and Neck patients in the MIM Maestro software.” State-wide Radiation Therapy Research and Development Collaborative Group, Videoconference, 11th March 2019.

ALLIEDHEALTHPROFESSIONS



Dr Clare Burns
Advanced Speech Pathologist
(Cancer Care)
Speech Pathology Department

Allied Health Professions have continued to build strength and diversity in cancer care related research across 2019. Our research activity has encompassed multidisciplinary teams within the fields of radiation oncology, medical oncology, haematology/BMT, and included other key services such as QIMR, QLD PET Service, Gastroenterology, Centre for Breast Health, and Infectious Diseases. We have continued to extend and build strong collaborations across Australia with specialist cancer care services including the Princess Alexandra Hospital, Peter MacCallum Cancer Centre, Royal Prince Alfred Hospital, and the academic centres of The University of Queensland, Queensland University of Technology, Griffith University, Bond University, and Deakin University.

In 2019, our innovative research has developed new methods for the evaluation of lymphoedema, screening for malnutrition, a model of care for the delivery of proactive enteral nutrition post allogeneic haematopoietic cell transplant, and a low risk dysphagia pathway for patients undergoing radiotherapy for head and neck cancer. The quality of Allied Health research has continued to receive national and international recognition across 2019. Dr Teresa Brown (Nutrition and Dietetics) was awarded the UQ Dean's Award for Outstanding Higher Degree by Research, Sarah Anderson (Nutrition and Dietetics) was awarded best oral at the British Association for Parenteral and Enteral Nutrition Annual Conference, and Laura Moroney (Speech Pathology) won best PhD student presentation at the Australia and New Zealand Speech Pathology Conference. Our research

teams have also been recognised locally with the RBWH Head and Neck Cancer Service receiving Highly Commended in the Clinical Research category at the Metro North HHS Research Excellence Awards, Allied Health Professions winning the Service Line Award for the Speech Pathology and Dietetics Head and Neck Cancer Service, and Nutrition and Dietetics (lead) winning the Health Practitioner Research Award at the 2019 Herston Healthcare Symposium. Dr Clare Burns and Laura Moroney also received an Excellence Awards in Research/Knowledge Translation from the Queensland Health Speech Pathology Advisory Committee.

Over the last year, Allied Health Professions staff have been awarded 15 new grants totalling over \$650,000, published 9 peer reviewed publications and presented 31 presentations at 9 international and 10 national conferences related to cancer care research. Allied Health Professions have also continued to grow in research capacity and capability across 2019. Key outcomes in this area have included Laura Moroney (Speech Pathology) submitting her PhD thesis in September, and six Allied Health clinical staff enrolled in research higher degrees supported by Post Graduate Research Scholarships from the RBWH Foundation and The University of Queensland. All students are supervised by clinical and research staff within Allied Health and the wider multidisciplinary team, and projects are embedded within RBWH to support the translation of outcomes to benefit both cancer care patients and services alike.

Supervised Post-Graduate Research Students

Name <i>(RBWH staff in bold)</i>	Current Studies <i>(e.g. PhD, Masters etc.)</i> University <i>(duration)</i>	Research Project Title	Supervisors <i>(RBWH staff in bold)</i>
Joanne Hiatt	PhD, UQ (2017-2023)	Nutrition throughout head and neck cancer treatment: patient experience and adherence, barriers and enablers to enteral feeding recommendations	Merrilyn Banks, Teresa Brown, Judy Bauer
Sarah Andersen	PhD, UQ (2015-2019)	Investigating nutrition support during allogeneic stem cell transplantation	Judy Bauer, Merrilyn Banks, Olivia Wright
Emilie Croisier	PhD, UQ (2018-2021)	Nutritional outcomes of gynaecology patients undergoing pelvic radiotherapy: understanding the patient experience and dietary recommendations for symptom management	Judy Bauer, Teresa Brown
Jasmine Jones	PhD, UQ (2018-2021)	Understanding the regional and remote head and neck cancer patient services journey	Liz Ward, Clare Burns, Rebecca Nund, Laurelie Wall
Laura Moroney	PhD, UQ (2015-2019)	Dysphagia and related toxicities in head and neck patients undergoing Helical Intensity Modulated Radiotherapy (H-IMRT) +/- chemotherapy	Liz Ward, Jane Crombie, Clare Burns
Sarah Wilson	MPhil, UQ (2018-2022)	Assessment of dysphagia following laryngectomy	Bena Cartmill, Clare Burns

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

Name <i>(RBWH Staff in bold)</i>	Type of Position <i>(Conjoint fellow, Adjunct, Honorary)</i>	Research Program	Affiliated University/ies
Teresa Brown	Research Coordinator, Associate Lecturer	Nutrition in cancer care	University of Queensland (2018-current)
Clare Burns	Clinician Research Fellow, Honorary Lecturer	Speech pathology and technology enabled health care	Metro North HHS (2019-2022) University of Queensland (2017-2020)
Maree Grier	Adjunct Lecturer	School of Psychology	University of Queensland (2018-current)
Hildegard Reul-Hirche	Honorary Research Position	Physiotherapy in cancer care	N/A

Current RBWH Research Group / Department Led Research Activity

RBWH Research Group / Department Led Researchers <i>(RBWH staff in bold)</i>	Collaborative Researchers and Others <i>(RBWH staff in bold)</i>	Research Project Title
Laura Moroney	Liz Ward (<i>Centre for Functioning and Health Research [CFAHR]; UQ</i>), Jane Crombie, Jennifer Helios, Clare Burns, Ann-Louise Spurgin, Liz Kenny, Brett Hughes, Clare Blake	Dysphagia and related toxicities in head and neck patients undergoing Helical Intensity Modulated Radiotherapy (H-IMRT) +/- chemotherapy
Clare Burns	Liz Ward (<i>CFAHR; UQ</i>), Jasmine Foley (<i>UQ</i>), Rebecca Nund (<i>UQ</i>), Laurelie Wall (<i>UQ; MSHHS</i>), Maurice Stevens, Lizbeth Kenny	Understanding the regional and remote Head and Neck Cancer (HNC) patient services journey
Clare Burns	Elizabeth Ward (<i>UQ</i>), Claire Blake, Liz Kenny , Rachael Villiers (<i>CQHHS</i>), Mia Hemingbrough (<i>CQHHS</i>), Tracy Comans (<i>UQ</i>), Kerrie-Anne Frakes (<i>CQHHS</i>), Phil Greenup (<i>QH</i>)	Implementation of a telepractice service providing specialist swallowing, nutrition, and communication intervention for patients with head and neck cancer
Clare Burns	Liz Ward (<i>CFAHR; UQ</i>), Annie Hill (<i>UQ</i>), Ben Keir (<i>Medical Physics</i>), Sharon Kelly (<i>ENT</i>), Linda Porter (<i>Medical Imaging</i>), Nick Phillips (<i>Medical Imaging</i>)	Conducting instrumental assessments of adult dysphagia via telehealth
Claire Blake	Teresa Brown, Rainbow Lai (<i>UQ</i>), Laura Moroney, Jennifer Helios, Brett Hughes, Liz Kenny , Anita Pelecanos (<i>QIMR</i>), Judy Bauer (<i>UQ</i>)	Nutrition outcomes and toxicities from tomotherapy in head and neck cancer patients
Claire Blake	Teresa Brown, Laura Moroney, Jennifer Helios, Brett Hughes, Liz Kenny , Anita Pelecanos (<i>QIMR</i>)	Enteral Nutrition outcomes and toxicities from tomotherapy in head and neck cancer patients

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

RBWH Research Group / Department Led Researchers <i>(RBWH staff in bold)</i>	Collaborative Researchers and Others <i>(RBWH staff in bold)</i>	Research Project Title
Claire Blake	Merrilyn Banks (<i>Nutrition and Dietetics</i>), Mark Appleyard (<i>Gastroenterology</i>)	Cost effectiveness of Dietitian-led PEG service
Claire Blake	Elise Treleaven , Anna Edwards (<i>UQ</i>), Teresa Brown	Evaluation of pre-treatment model of care in patients with head and neck cancer
Claire Blake	Elise Treleaven , Ally di Bella , Teresa Brown , Adrienne Young (<i>Nutrition and Dietetics</i>), Jenni Leutenegger , David Wyld	Implementation of patient-led malnutrition screening in the cancer care ambulatory setting
Emilie Croisier	Alana Morrissy (<i>UQ</i>), Teresa Brown , Alice Brigg , Philip Chan , Jeffrey Goh , Judy Bauer (<i>UQ</i>)	The clinical and nutritional implications of pelvic radiotherapy in gynaecology oncology patients, an observational study
Joanne Hiatt	Teresa Brown , Merrilyn Banks (<i>Nutrition and Dietetics</i>), Judy Bauer (<i>UQ</i>)	Patient experience of nutrition care across three treatment modalities for the management of head and neck cancer
Joanne Hiatt	Angela Byrnes	Implementation of enteral feeding protocol for patients on 8AN ward
Sarah Andersen	Merrilyn Banks (<i>Nutrition and Dietetics</i>), Glen Kennedy , Teresa Brown , Nicholas Weber , Judy Bauer (<i>UQ</i>)	Staff perceptions, barriers and enablers to enteral feeding during allogeneic stem cell transplantation
Sarah Andersen	Merrilyn Banks (<i>Nutrition and Dietetics</i>), Glen Kennedy , Teresa Brown , Nicholas Weber , Judy Bauer (<i>UQ</i>)	Nutrition support during allogeneic transplantation in Australian adult bone marrow transplantation units
Sarah Andersen	Madison Jefferis (<i>UQ</i>), Cameron Curley , Teresa Brown , Judy Bauer (<i>UQ</i>)	Investigating the effect of malnutrition on clinical outcomes post allogeneic stem cell transplantation
Teresa Brown	Jane Crombie , Ann-Louise Spurgin , Aaron Chan (<i>UQ</i>), Kathleen Dwyer , Merrilyn Banks (<i>Nutrition and Dietetics</i>), Brett Hughes , Judy Bauer (<i>UQ</i>), Charles Lin , Liz Kenny	Revalidation of swallow and nutrition guidelines in tomotherapy
Teresa Brown	Ray Chan (<i>PAH</i>), Angela Byrnes , Alex Molassiotis (Hong Kong), Patsy Yates (<i>QUT</i>), Gillian Nasato , Elise Button , Andrea Marshall (<i>Griffith</i>), Liz Isenring (<i>Bond University</i>), David Wyld , Melissa Eastgate , Nicole Gavin	A patient-family-centred intervention to promote nutrition in advanced cancer patients: a pilot randomised controlled trial
Teresa Brown	Louise Cooney (<i>PAH</i>), Louise Elvin-Walsh (<i>PAH</i>), Eliza Kern , Suzie Ahern , David Smith (<i>QIMR</i>), Liz Kenny , Brett Hughes , Sandro Porceddu (<i>PAH</i>), Ingrid Hickman (<i>PAH</i>), Bena Cartmill (<i>PAH</i>)	Comparison of nutrition and clinical outcomes in H&N cancer patients following reactive and proactive nutrition support approaches
Teresa Brown	Merrilyn Banks (<i>Nutrition and Dietetics</i>), Brett Hughes , Charles Lin , Liz Kenny , Louise Campbell (<i>Qld PET Service</i>), Judy Bauer (<i>UQ</i>)	Assessment of sarcopenia and malnutrition in patients with head and neck cancer undergoing treatment of curative intent – implications for practice
Leonie Naumann	Jennifer Paratz (<i>Physiotherapy</i>), Michelle Cottrell (<i>Physiotherapy</i>), Hildegard Reul Hirche , Clare Burns , Tracy Comans (<i>UQ</i>), Anna Finnane (<i>UQ</i>), Trevor Russell (<i>UQ</i>)	Pilot study of education and monitoring for early lymphoedema detection being delivered by telehealth to patients after breast cancer surgery
Kirsty Quince	Leonie Naumann , Michelle Cottrell (<i>Physiotherapy</i>), Hildegard Ruel-Hirche , Kowsalya Murugappan (<i>Centre for Breast Health, RBWH</i>)	Incidence of lymphoedema following lymph node removal in the surgical treatment of breast cancer: a retrospective audit
Leonie Naumann	Hildegard Ruel-Hirche , Amanda Pigott (<i>UQ</i>), Jodie Nixon (<i>PAH</i>)	Advanced lymphedema course quality evaluation
Robyn Scheer		The lymphoedema arm measurement study – Winter vs summer
Robyn Scheer	Nicole Andrews (<i>OT</i>), Erin Crofton (<i>OT</i>)	The effect of limb position on leg circumference measurements in patients diagnosed with lower limb lymphoedema
Ashleigh Scott, Glen Kennedy , Katie McMahon, Olivier Salvado, Kate Thompson and Ada Lo	Ada Lo , Kate Thompson	MINERAL: Magnetic Resonance Imaging and Quantitative susceptibility mapping (MRI-QSM) of brain iron to identify chemotherapy-associated neurocognitive impairment (CANI) in Acute Myeloid Leukemia (AML)

Collaborative Research Activity involving RBWH Research Group / Department

Collaborative Led Researchers	RBWH Researchers and Others <i>(RBWH staff in bold)</i>	Research Project Title
Melissa Eastgate <i>(Cancer Care Services)</i>	Shu Fen Lee, David Wyld, Teresa Brown	Patient perceptions of diet and cancer – survey of cancer care patients
Nicole Gavin <i>(Cancer Care Services)</i>	Glen Kennedy, David Patterson <i>(Infectious Diseases)</i> , Claire Rickard <i>(Griffith Uni)</i> , Sarah Andersen, Elise Button, Rebecca Lippiatt	Exploring changes in gastrointestinal tract microbiome and their influence on mucosal barrier injury laboratory confirmed bloodstream infection in patients diagnosed with high risk features of acute myeloid leukaemia
Nicole Gavin <i>(Cancer Care Services)</i>	Glen Kennedy , Claire Rickard <i>(Griffith Uni)</i> , Patrick Harris <i>(UQ)</i> , Sarah Andersen, Elise Button, Rebecca Lippiatt	Improving central-line associated bloodstream infection diagnosis in malignant haematology patients with parenteral nutrition (Improving CLABSI Trial)
Nicole Kiss <i>(Deakin University)</i>	Anna Boltong <i>(Cancer Council)</i> , Merran Findlay <i>(RPA)</i> , Belinda Steer <i>(Peter Macallum)</i> , Jenelle Loeliger <i>(Peter Mac)</i> , Teresa Brown, Liz Isenring <i>(Bond)</i> , Judy Bauer <i>(UQ)</i>	Australian cancer clinician's awareness, perceptions and practices regarding to cancer-related malnutrition and sarcopenia
Alice Pashley <i>(UQ)</i>	Teresa Brown, Belinda Lehn, Robert Hodge <i>(ENT)</i> , Judy Bauer <i>(UQ)</i>	Investigating the effects of nutritional status on post-operative complications in patients with head and neck cancer undergoing laryngectomy and pharyngolaryngectomy
Judy Bauer <i>(UQ)</i>	Teresa Brown, Marilyn Banks <i>(Nutrition and Dietetics)</i> , Brett Hughes, Charles Lin, Liz Kenny, Louise Campbell <i>(Qld PET Service)</i>	Comparison of body composition methods in head and neck cancer patients undergoing chemoradiotherapy – PET-CT vs BIA
Lee Reid, Jurgen Fripp, Stephen Rose, Marita Prior, Rosalind Jeffree, David Walker, Hamish Alexander, Parnesh Raniga, Julie Trinder, Kate Thompson and Ada Lo	Ada Lo, Kate Thompson	Predicting Surgery-induced Neurological Deficits using CONSULT. A study to measure the ability of CONSULT tractography software to predict surgery-induced neurological deficits
Ashleigh Scott, Glen Kennedy, Katie McMahon, Olivier Salvado, Kate Thompson and Ada Lo	Ada Lo, Kate Thompson	MINERAL: Magnetic Resonance Imaging and Quantitative susceptibility mapping (MRI-QSM) of brain iron to identify chemotherapy-associated neurocognitive impairment (CANI) in Acute Myeloid Leukemia (AML)

Research Awards and Achievements

Recipient <i>(RBWH staff in bold)</i>	Award	Event
RBWH Head and Neck Cancer Service	Clinical Research Award – Highly commended	MNHHS Research Excellence Awards 2019
Allied Health Professions - Speech Pathology and Dietetics Head and Neck Cancer Service	Service Line Award	QuARRIES Awards 2019
Sarah Andersen	Best oral communication	British Association for Parenteral and Enteral Nutrition (BAPEN) Annual Conference, November 2019
Claire Blake, Anna Edwards, Elise Treleven, Teresa Brown, Brett Hughes, Charles Lin, Lizbeth Kenny, Marilyn Banks, Judy Bauer	Health Practitioner Research Award	Herston Healthcare Symposium 2019
Teresa Brown	2017 Dean's Award for Outstanding Higher Degree by Research Theses	University of Queensland – awarded 5 th March 2019
Clare Burns	Excellence Award in Research/Knowledge Translation	Queensland Health Speech Pathology Advisory Committee (QHSPAC) Annual Forum, 10 th September 2019, Brisbane
Laura Moroney	Best PhD Student Oral Presentation	Speech Pathology Australia Conference, 5 th June 2019, Brisbane
Laura Moroney	Excellence Award in Research/Knowledge Translation	Queensland Health Speech Pathology Advisory Committee (QHSPAC) Annual Forum, 10 th September 2019, Brisbane

Research Grants

Investigators <i>(RBWH staff in bold)</i>	RBWH Research Groups / Departments	Project Title	Granting Body	Total of funds awarded	Funds used in 2019	Years
Claire Blake, Ally di Bella, Teresa Brown, Adrienne Young, Jenni Leutenegger, David Wyld	Nutrition and Dietetics; Cancer Care	Implementation of patient-led malnutrition screening in the cancer care ambulatory setting	RBWH Foundation Diamond Grant	\$40,000	\$20,000	2018-2019
Midori Nakagaki, Glen Kennedy, Cameron Curley, Michael Smith, Therese hays, Jenni Leutenegger, Annett Barnes, Caroline Stewart, Teresa Brown, Rebecca Fichera, Leonie Naumann, Angela O'Malia, Ian Coombes, Karen Whitfield, Emma Foley, Suzette Fox, Nicole Gavin, Justin Brennan	Pharmacy, Cancer Care Services Nutrition and Dietetics, Physiotherapy, Social Work	Implementation and Evaluation of a Nurse- Allied Health Multidisciplinary Post-Bone Marrow Transplant Clinic	MNHHS SEED Innovation Fund	\$81,150	\$11,813	2019
Natasha Roberts <i>(Cancer Care Services, RBWH), Leonie Naumann</i>	Physiotherapy and Cancer Care	Nurse-led symptom management in medical oncology care	RBWH Foundation Diamond Care Grants 2019	\$39,027	\$9,825.00	2019-2020
Leonie Naumann, Jennifer Paratz, Hildegard Reul-Hirche, Michelle Cottrell, Clare Burns, Anna Finnane (UQ), Tracy Comans (UQ), Trevor Russell (UQ)	RBWH Physiotherapy and University of Queensland	A telehealth model for education and monitoring of early lymphoedema detection and shoulder dysfunction in patients after breast cancer surgery: a pilot cohort study	Health Practitioner Research Scheme	\$29,929	\$14,964.50	2018-2019
Leonie Naumann, Jennifer Paratz, Hildegard Reul-Hirche, Michelle Cottrell, Clare Burns, Anna Finnane, Tracy Comans, Trevor Russell, Kirsty Quince	RBWH Physiotherapy, Speech Pathology and University of Queensland	A telehealth model for education and monitoring of early lymphoedema detection and shoulder dysfunction in patients after breast cancer surgery: a pilot cohort study	RBWH Foundation Diamond Care Grants 2019	\$12,816	\$12,816	2019-2020
Clare Burns	Speech Pathology	Enhancing speech pathology dysphagia services through telepractice	Metro North Clinician Research Fellowships	\$175,000	\$43,000	2019-2022
Liz Ward (CFAHR, UQ), Clare Burns, Nicky Graham (QH), Rebecca Nund (UQ), Laurelie Wall (UQ), Jasmine Foley, Wendy Comben (QH), Emily Missenden (QH)	Speech Pathology	Enhancing SP outpatient models of care in regional services for patients with Head and Neck Cancer	Health Practitioner Research Scheme	\$95,808	\$28,830	2019-2020
Leonie Naumann	Physiotherapy	A telehealth model for education and monitoring of early lymphoedema detection and shoulder dysfunction in patients after breast cancer surgery: a pilot cohort study	RBWH Foundation Diamond Care Grant	\$12,816		2019-2020
Nadia de Silva, Lindy Jeffree <i>(Neurosurgery), David Copland (UQ)</i>	Speech Pathology	Development of an innovative intra-operative language testing battery for patients with brain tumours	RBWH Diamond Care Grant	\$28,202.50	\$14,101	2019-2020

2019 Research Publications

Journal Articles

1. **Andersen S**, Weber N, Kennedy G, **Brown T**, **Banks M**, Bauer J. [Tolerability of proactive enteral nutrition post allogeneic haematopoietic progenitor cell transplant: a randomised comparison to standard care](#). *Clinical Nutrition*. DOI: 10.1016/j.clnu.2019.06.012
2. **Andersen, S.**, Staudacher, H., Weber, N., Kennedy, G., Varelias, A., **Banks, M.** & Bauer, J. (2019). Pilot study investigating the effect of enteral and parenteral nutrition on the gastrointestinal microbiome post-allogeneic transplantation. *British Society for Haematology*. doi: 10.1111/bjh.16218
3. **Brown T.** Patients with HPV-associated oropharyngeal head and neck cancer have higher rates of weight loss and increased supportive needs. *J Medical Radiation Sciences* Published online 19 December 2019 Vol 66 Issue 4 pages 226-228. doi.org/10.1002/jmrs.360
4. **Burns, C.L.**, Wishart, L.R., Kularatna, S., Ward, E.C. (in press). Knowing the costs of change: An introduction to health economic analyses and considerations for their use in implementation research. *Speech, Language and Hearing*. DOI: 10.1080/2050571X.2019.1693750
5. **Burns, C. L.**, Ward, E. C., Gray, A., Baker, L., Cowie, B., Winter, N., ... Turvey, J. (2019). Implementation of speech pathology telepractice services for clinical swallowing assessment: An evaluation of service outcomes, costs and consumer satisfaction. *Journal of Telemedicine and Telecare*, 25(9), 545–551. <https://doi.org/10.1177/1357633X19873248>
6. **Di Bella, A., Croisier E, Blake C,** Pelecanos A, **Brown T,** Bauer J. (2019). Assessing the concurrent validity and inter-rater reliability of patient-led screening using the Malnutrition Screening Tool (MST) in the ambulatory cancer care outpatient setting. *Journal of the Academy of Nutrition and Dietetics*. Published online 28 December 2019. Doi.org/10.1016/j.jand.2019.10.015
7. Gane EM, McPhail SM, Hatton AL, Panizza BJ, **O’Leary SP.** Neck and Shoulder Motor Function following Neck Dissection: A Comparison to Healthy Control Subjects. *Otolaryngology-Head and Neck Surgery*. 2018 DOI: 10.1177/0194599818821885
8. **Moroney L,** Ward EC, **Helios J, Crombie J, Burns C.L., Blake C.,** Comans, T., **Kenny L., Chua B., Hughes B.** (2019). The RBWH head and neck cancer low risk speech pathology pathway: Evaluation of an alternative supportive care service delivery model. *Supportive Care in Cancer*, doi:10.1007/s00520-019-04992-x
9. Steele M, Janda M, Vagenas D, Ward L, Cornish B, Box R, Gordon S, Matthews M, Poppitt S, Plank L, Yip W, Rowan A, **Reul-Hirche H,** Obermair A, Hayes S. A bioimpedance spectroscopy-based method for diagnosis of lower-limb lymphoedema. *Lymphatic Research and Biology*. 2019 Sept 5 doi: 10.1089/lrb.2018.0078 (Epub ahead of print).

2019 Conference Presentations – Invited Speaker, Oral and Poster

Invited Speakers

1. **Burns, C.L.** Interdisciplinary Dysphagia Clinical Programs: How do we develop? Dysphagia Research Society. 7th March 2019. San Diego, California
2. **Burns, C.L.,** Ward, E.C. Communications from clinic to community using technology & telepractice: Implications for dysphagia practice. Dysphagia Research Society. 7th March 2019. San Diego, California
3. Ward, EC., & **Burns, C.L.** Using technology & telepractice: Implications for dysphagia practice. Speech Pathology Australia Conference. 7th June 2019. Brisbane.

Oral Presentations

1. **Andersen S.** Nutrition Support and the gastrointestinal microbiome, a systematic review and pilot study. BAPEN Annual Conference, Belfast, November 2019
2. **Blake, C., Edwards, A., Treleaven, E., Brown, T., Hughes, B., Lin, C., Kenny, L., Banks, M.,** Bauer, J. Evaluation of Nutrition Outcomes Post-Implementation of a Pre-Treatment Model Of Care For Patients With Head And Neck Cancer Receiving Chemoradiotherapy. Herston Healthcare Symposium, Brisbane September 2019
3. **Blake, C., Edwards, A., Treleaven, E., Brown, T., Hughes, B., Lin, C., Kenny, L., Banks, M.,** Bauer, J. Nutrition Outcomes Post-Implementation of a Pre-Treatment Model Of Care For Patients With Head And Neck Cancer Receiving Chemoradiotherapy. Herston Healthcare Symposium, Brisbane September 2019
4. **Burns, C.L.** Evaluation of service outcomes, costs and consumer engagement following implementation of telepractice services for swallowing assessments. Herston State of the Art Healthcare symposium. 12th September 2019, Brisbane
5. **Burns, C.L.** Speech Pathology Telepractice Services. Queensland Health Speech Pathology Advisory Committee Annual Forum. 9th September 2019, Brisbane
6. **Burns, C.L.** An Evaluation of Service Outcomes, Costs, and Consumer Engagement Following Implementation of a Telepractice Service for Swallowing Assessments. Successes and Failures in Telehealth Conference, 21-23 October 2019, Gold Coast
7. **Burns, C.L.** A Clinician Researchers journey. Cancer Care Research Retreat, 24th October 2019, RBWH Education Centre
8. **Hiatt J, Brown T, Lewis CA, Banks M,** Bauer J. Patient and carer experience of nutrition care throughout and beyond treatment for head and neck cancer: a systematic review and meta-synthesis. Australia & New Zealand head & neck Cancer Society ASM, Adelaide, September 2019
9. **Irwin-Hobbs T and Brennan, J.** The 5C Group – Building connections between patients and carers on the ward: Social Work-facilitated group work in Haematology and Bone Marrow Transplant. Oncology Social Work Australia Conference, Hobart, Australia, 21-22 Nov 2019
10. Jefferis, M., **Andersen, S., Brown, T., Curley, C.,** Bauer, J. Effect of malnutrition on clinical outcomes post allogeneic stem cell transplantation. DAA National Conference, Brisbane August 2019

Oral Presentations (cont)

11. **Moroney, L., Helios, J., Ward, E., Crombie, J., Burns, C.L., Blake, C.,** Pelecanos, A., Comans, T., **Kenny, L., Chua, B., Hughes, B.** Outcomes of a new speech pathology service for "low risk" patients receiving radiation for HNC: Is it safe and efficient? Herston State of the Art Healthcare symposium. 9th September 2019, Brisbane
12. **Moroney, L., Helios, J., Ward, E., Crombie, J., Burns, C.L., Blake, C.,** Pelecanos, A., Comans, T., **Kenny, L., Chua, B., Hughes, B.** Outcomes of a new speech pathology service for "low risk" patients receiving radiation for HNC: Is it safe and efficient? Queensland Health Speech Pathology Advisory Committee Annual Forum. 9th September 2019, Brisbane
13. **Moroney, L., Helios, J., Ward, E., Crombie, J., Burns, C.L., Blake, C.,** Pelecanos, A., Comans, T., **Kenny, L., Chua, B., Hughes, B.** Outcomes of a new speech pathology service for "low risk" patients receiving radiation for HNC: Is it safe and efficient? Speech Pathology Australia National Conference. 5th June 2019, Brisbane
14. **Quince K, Burns C, Fischera R, Crofton E, Naumann L, Thomas P.** The critically unwell patient with cancer: a multidisciplinary challenge. The Herston Healthcare Symposium – State of the Art. Brisbane, September 2019
15. Waters M, Brebner N, Fielding B, Chaplain A, Bransdon M, **de Jersey SJ.** Allied health in cancer care, electronically capturing what we do to inform succession planning from a skills based perspective. National Allied Health Conference. Brisbane August 2019.

Poster Presentations

1. **Blake, C., Edwards, A., Treleaven, E., Brown, T.,** Hughes, B., Lin, C., Kenny, L., **Banks, M.,** Bauer, J. Nutrition Outcomes Post-Implementation of a Pre-Treatment Model Of Care For Patients With Head And Neck Cancer Receiving Chemoradiotherapy. Herston Healthcare Symposium, Brisbane September 2019
2. **Brown T, Banks M, Campbell L, Hughes B, Ahern E, Lin C, Kenny L,** Bauer J. Assessment of sarcopenia and malnutrition in patients with head and neck cancer undergoing treatment of curative intent – implications for practice. Society for Sarcopenia, Cachexia and Wasting Disorders, Berlin, December 2019
3. **Burns, C.L.,** Ward, E., Gray, A., Baker, L., Cowie, B., Rusch, R., Winter, N., Bignell, S., & Turvey, J. Evaluation of service outcomes, costs and consumer engagement following implementation of telepractice services for swallowing assessments. Herston State of the Art Healthcare symposium. 9th September 2019, Brisbane
4. **Croisier, E.,** Morrissy, A, **Brown, T.,** Grigg, A., Chan, P., Goh, J., Bauer, J. The Clinical and Nutritional implications of Pelvic Radiotherapy in Gynaecology Oncology Patients, an Observational Study. Herston Healthcare Symposium, Brisbane September 2019
5. **Croisier E, Brown T,** Bauer J. The efficacy of dietary fibre modification for managing gastrointestinal toxicity symptoms in gynae-oncology patients undergoing pelvic radiotherapy: a systematic review. ANZGOG Conference, Sydney, March 2019
6. **Croisier, E., Brown, T., Bauer, J.** The role of dietary fibre in managing gastrointestinal toxicity symptoms in gynaecology patients undergoing pelvic radiotherapy DAA National Conference, Brisbane August 2019
7. **Croisier, E.,** Morrissy, A, **Brown, T.,** Grigg, A., Chan, P., Goh, J., Bauer, J. The Clinical and Nutritional implications of Pelvic Radiotherapy in Gynaecology Oncology Patients, an Observational Study. Herston Healthcare Symposium, Brisbane September 2019
8. **Jefferis, M., Andersen, S., Brown, T.,** Curley, C., and Bauer, J. Effect of malnutrition on clinical outcomes post allogeneic stem cell transplantation. Herston Healthcare Symposium, Brisbane September 2019
9. **Kiss N, Bauer J, Boltong A, Brown T, Isenring E, Loeliger J, Steer B, Findlay M.** Australian Cancer Clinicians' awareness, perceptions and practices regarding cancer-related malnutrition & sarcopenia. AuSPEN, Adelaide, November 2019
10. **Kiss N, Bauer J, Boltong A, Brown T, Isenring E, Loeliger J, Steer B, Findlay M.** Australian Cancer Clinicians' awareness, understandings and perceptions regarding cancer-related malnutrition & sarcopenia. Clinical Oncological Society of Australia (COSA) ASM, Adelaide, November 2019
11. **Kiss N, Bauer J, Boltong A, Brown T, Isenring E, Loeliger, Steer B, Findlay M.** Australian cancer clinicians' awareness, perceptions and practices regarding cancer-related malnutrition and sarcopenia. MASCC, San Francisco, June 2019
12. **Pashley A, Brown T, Lehn B, Hodge R,** Bauer J. Investigating the effects of nutritional status on post-operative complications in a head and neck surgical population. Clinical Oncological Society of Australia (COSA) ASM, Adelaide, November 2019
13. **Taubert, S.,** Ward, E., **Burns, C.L., Bassett, L., Porter, L.,** Burfein, P. Implementation and Evaluation of speech pathology-led referring process for videofluoroscopic studies. Speech Pathology Australia National Conference. 3rd June 2019. Brisbane.

Other communications and outputs:

Staff Member	Details
Clare Burns	An update on Speech Pathology intervention in Head and Neck Cancer: Current pathways, practices and considerations. Speech Pathology Australia Live Webinar 31 st January 2019
Laura Moroney	PhD Thesis 'Dysphagia and related toxicities in head and neck patients undergoing Helical Intensity Modulated Radiotherapy (H-IMRT) +/- chemotherapy' submitted to University of Queensland, 24 th September 2019