

Research and Teaching Reports

A message from the Research Committee

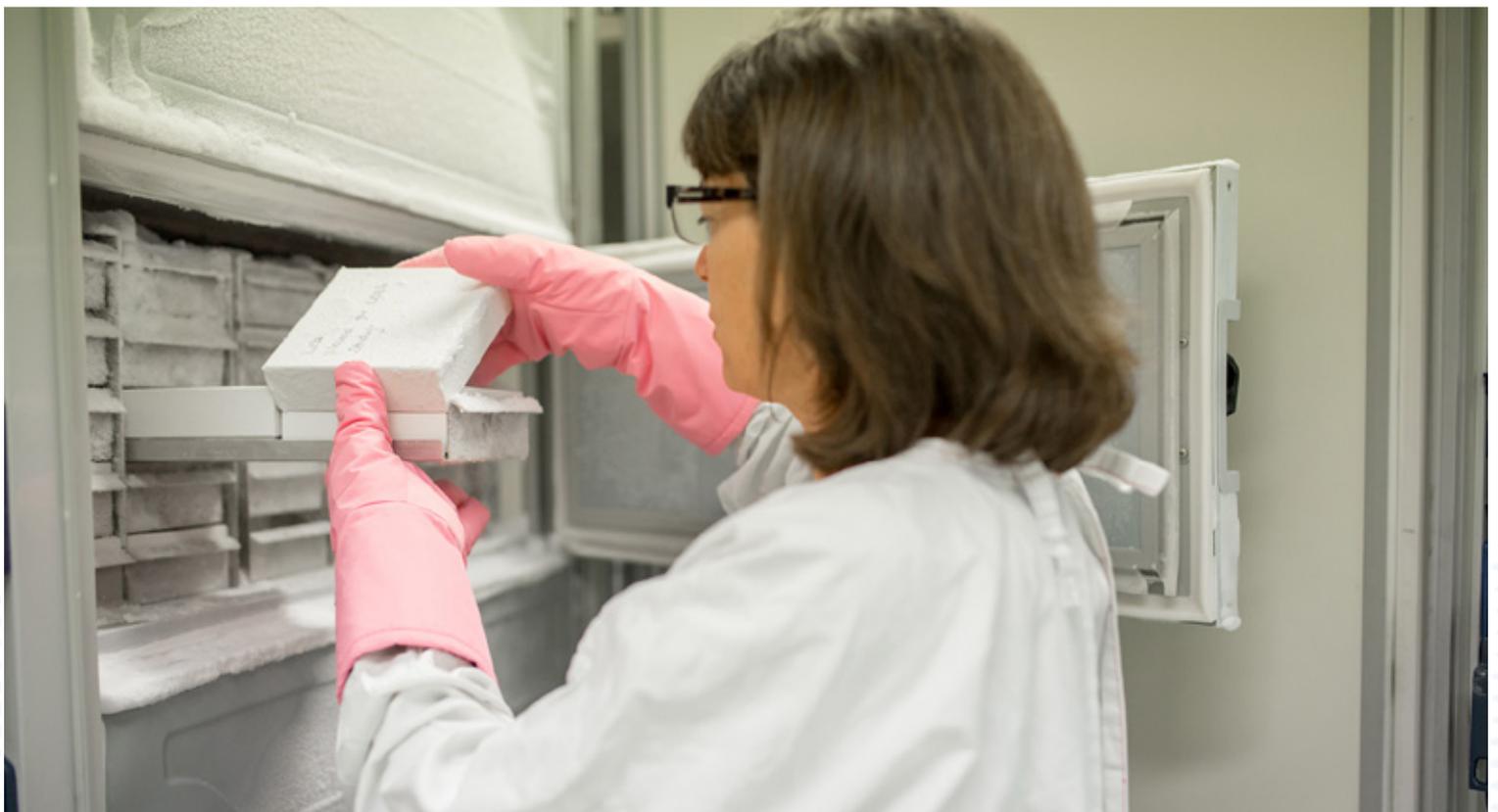
The Translational Research Advisory Committee (TRAC), Clinical Trials Sub-Committee (CTC) and Research Development and Engagement Sub-Committee (ReDE) have experienced a productive period throughout 2022-2023.

The main areas of focus of our research committees throughout the year included:

- The National Clinical Trials Governance Framework (NCTGF)
- Statewide Clinical Trials Management System (CTMS)
- Consumer Engagement and Involvement in Research
- Facilitation of the CMN Annual Grant Rounds

Achievements by our research committees and research teams throughout the year included:

- Establishment of a NCTGF Working Party
- Review and updating of the CMN Research Standard Operating Procedures (SOP's)
- Development and implementation of a Clinical Trial Participant Patient Survey
- The announcement of the Vicki Barrett Research Fund which was established after a generous donation was received from the estate of Vicki Barrett, a previous CMN patient with the wish for her bequest to be used for cancer research.
- Promoting awareness of the CMN Research Governance process throughout the hospital
- Consumer engagement activities - (Laboratory tour, Hunter Valley presentation, Visit and donation from Lifeball members)
- Celebration of Medical Research Week and International Clinical Trials Day
- Establishment of an Early Phase Clinical Trials space.



Research Grants awarded

The Calvary Mater Newcastle Research Development and Engagement (ReDE) Committee was pleased to be able to offer grant opportunities in 2022-23 through the Oncology Research Grant, Margaret Mitchell Grant, Vicki Barrett Research Fund and the HCRA Clinical Cancer Research Fund.

The successful recipients of funding in 2022-23 were:

Oncology Research Grant

- Dr Jennette Sakoff and Dr Jayne Gilbert, Medical Oncology – The AHR pathway and breast cancer selectivity, \$34,650.

Margaret Mitchell Grant

- Dr Lisa Lincz, Kathryn Skelding, Dr Anoop Enjeti, Haematology – A potential circulating biomarker for leukaemia and pre-leukaemia \$23,197.
- Madhu Garg, Dr James Lynam, Medical Oncology – Mitotane Pharmacodynamics in Adrenocortical Cancer in Children and Adults, \$25,000.

Vicki Barrett Research Fund

- Dr Shyam Gangadharan, General Medicine – Mechanisms of cancer related stroke: to detect cancer in patients with cryptogenic stroke, correlating brain imaging and biomarkers, \$16,640.

HCRA Clinical Cancer Research Fund

- Sarah Gallagher, Radiation Oncology – Essential lab equipment for storing cancer clinical trial patient samples, -80 freezer, \$12,000.
- Dr Jayne Gilbert, Medical Oncology – Maintenance of essential equipment in the processing and storage of patient samples. Servicing of biological safety cabinets, balances, centrifuges, repair of ultra-low freezer, liquid nitrogen, \$4,275.
- Madhu Garg, Medical Oncology – HPLC and data analysis infrastructure support for therapeutic drug monitoring in Cancer patients. HPLC service/maintenance, Statistica software renewal, HPLC analytical columns, guard columns and vials, maintenance/repair microcentrifuge, \$10,232.
- Dr Lisa Lincz, Haematology – 2022 service contract for CMN flow cytometer, \$3,670.

The ReDE Committee extends their appreciation to the assessors and review panel members for dedicating their time and expertise to provide invaluable scientific reviews and guidance for distributing of these funds.

Department Research

DEPARTMENT OF CONSULTATION-LIAISON PSYCHIATRY

JOURNAL ARTICLES/PUBLICATIONS

1. Stieler M, Pockney P, Campbell C, Thirugnanasundralingam V, Gan L, Spittal MJ, Carter G.
Somatic symptom severity associations with healthcare utilisation and costs in surgical inpatients with an episode of abdominal pain.
(*BJS Open*. 2022 Jul 7;6(4):zrac046. doi: 10.1093/bjsopen/zrac046. PMID: 35796068; PMCID: PMC9260183.)
2. Kerrie Clover; Sylvie D. Lambert; Christopher Oldmeadow; Benjamin Britton; Alex J Mitchell; Gregory Carter; Madeleine King
Convergent and criterion validity of PROMIS anxiety measures relative to six legacy measures and a structured diagnostic interview for anxiety in cancer patients.
(*J Patient Rep Outcomes* 6, 80 (2022). <https://doi.org/10.1186/s41687-022-00477-4>.)
3. Vanessa H. Bal, Bennett L. Leventhal, Gregory Carter, Hosanna Kim, Yun-Joo Koh, Mina Ha, Ho-Jang Kwon, Patricia Hong & Young Shin Kim (2022) Parent-Reported Suicidal Ideation in Three Population-Based Samples of School-Aged Korean Children With Autism Spectrum Disorder and Autism Spectrum Screening Questionnaire Screen Positivity
(*Archives of Suicide Research*, 26:3, 1232-1249, DOI: 10.1080/13811118.2020.1868367)
4. Kristen McCarter, Amanda L. Baker, Luke Wolfenden, Chris Wratten, Judith Bauer, Alison K. Beck, Erin Forbes, Gregory Carter, Lucy Leigh, Christopher Oldmeadow, Ben Britton
Smoking and other health factors in patients with head and neck cancer
(*Cancer Epidemiology*, Volume 79, 2022, 102202, ISSN 1877-7821, <https://doi.org/10.1016/j.canep.2022.102202>. (<https://www.sciencedirect.com/science/article/pii/S1877782122001072>)).
5. Chitty, Kate; Cvejic, Rachael; Heintze, Theresa; Srasuebkul, Preeyaporn; Morley, Kirsten; Dawson, Andrew; Carter, Gregory; Dinh, Michael; Buckley, Nicholas; Trollor, Julian
The association between problematic use of alcohol and drugs on repeat self-harm and suicidal ideation: insights from a population-based administrative health dataset
(*The Journal of Crisis Intervention and Suicide Prevention* online September 2022. DOI: 10.1027/0227-5910/a000880)
6. Wu Y, Levis B, Daray FM, Ioannidis JPA, Patten SB, Cuijpers P, Ziegelstein RC, Gilbody S, Fischer FH, Fan S, Sun Y, Benedetti A, Thombs BD, and the DEPRESSD HADS Group. Comparison of the accuracy of the 7-item HADS Depression subscale and 14-item total HADS for screening for major depression: a systematic review and individual participant data meta-analysis.
(*Psychol Assess*, 2023;35:95-114. doi:10.1037/pas0001181.)
7. McGill K, Salem A, Hanstock TL, Heard TR, Garvey L, Leckning B, Whyte I, Page A, Carter G.
Indigeneity and Likelihood of Discharge to Psychiatric Hospital in an Australian Deliberate Self-Poisoning Hospital-Treated Cohort.
International Journal of Environmental Research and Public Health. 2022; 19(19):12238. <https://doi.org/10.3390/ijerph191912238>)
8. Carter G, Sperandei S, Spittal MJ, Chitty K, Clapperton A, Page A.
Characteristics of suicide decedents with no federally funded mental health service contact in the 12 months before death in a population-based sample of Australians 45 years of age and over.
(*Suicide and Life-Threatening Behavior*, 53, 110–123. <https://doi.org/10.1111/sltb.12928>)
Journal articles/publications (continued)
9. Gregory Carter, Matthew J. Spittal, Linda Glowacki, Dimitri Gerostamoulos, Paul Dietze, Barbara Sinclair, Shalini Arunogiri, Michael Berk, Dan I. Lubman, Victoria Manning, Peter Higgs, Brendan Quinn, Amanda Baker, Olivia M. Dean, Alynna Turner, Rebecca McKetin
Diagnostic accuracy for self-reported methamphetamine use versus oral fluid test as the reference standard, in a methamphetamine dependent intervention trial population.
(*Addiction* 2023 Mar;118(3):470-479. doi: 10.1111/add.16085. Epub 2022 Dec 3. PMID: 36367075.)
10. Dani A, Balachandran S, McGill K, Whyte I, Carter G.
Prevalence of Depression and Predictors of Discharge to a Psychiatric Hospital in Young People with Hospital-Treated Deliberate Self-Poisoning at an Australian Sentinel Unit.
(*International Journal of Environmental Research and Public Health*. 2022; 19(23):15753. <https://doi.org/10.3390/ijerph192315753>)
11. Chitty KM, Sawyer MG, Carter G, Lawrence D.
Use of Medicare Benefit Scheme mental health services in young people who experienced self-harm and/or suicidal behaviours: Data from the Young Minds Matter survey.
(*Australasian Psychiatry*. 2023;31(3):270-276. doi:10.1177/10398562231163415)
12. Witt K, Rajaram G, Lamblin M, Knott J, Dean A, Spittal MJ, Carter G, Page A, Pirkis J, Robinson J.
Characteristics of self-harm presentations to the emergency department of the Royal Melbourne Hospital, 2012–2019: Data from the Self-Harm Monitoring System for Victoria.
(*Australas Emerg Care*. 2023 Jan 27;S2588-994X(23)00003-9. doi: 10.1016/j.auec.2023.01.003.
Epub ahead of print. PMID: 36710228.)
13. Alison K. Beck, Amanda L. Baker, Ben Britton, Alistair Lum, Sonja Pohlman, Erin Forbes, Lyndell Moore, Ditte Barnoth, Sarah J. Perkes, Chris Oldmeadow, Gregory Carter
Adapted Motivational Interviewing for Brief Healthcare Consultations: A Systematic Review and Meta-Analysis of Treatment Fidelity in Real-World Evaluations of Behaviour Change Counselling
(*British Journal of Health Psychology*, <https://doi.org/10.1111/bjhp.12664>)
14. Long Khanh-Dao Le, Anna Flego, Karolina Krysinska, Karl Andriessen, Piumee Bandara, Andrew Page, Marisa Schlichthorst, Jane Pirkis, Catherine Mihalopoulos, Greg Carter, Lennart Reifels.
Modelling the cost-effectiveness of brief aftercare interventions following hospital-treated self-harm
(accepted *BJPsych Open* June 2023).
15. Chitty KM, Sperandei S, Carter G, Ali Z, Raubenheimer JE, Schaffer A, Page A, Buckley NA
Five healthcare trajectories in the year before suicide and what they tell us about selective prevention: a population-level case series study
(accepted *eClinical Medicine* June 2023)
16. Colleen Loo, Nick Glozier, David Barton, Bernhard Baune, Natalie Mills, Paul Fitzgerald, Paul Glue, Shanthi Sarma, Veronica Galvez-Ortiz, Dusan Hadzi-Pavlovic, Angelo Alonzo, Vanessa Dong, Donel Martin, Stevan Nikolin, Philip Mitchell, Michael Berk, Gregory Carter, Maree Hackett, John Leyden, Sean Hood, Andrew Somogyi, Kyle Lapidus, Elizabeth Stratton, Ellen Lyrtzis, Kirsten Gainsford, Shona Neehoff, Deepak Garg, Nicollette Thornton, Célia Fourier, Karyn Richardson, Demi Rozakis, Anish Scaria, Cathrine Mihalopoulos, Mary Lou Chatterton, William McDonald, Philip Boyce, Paul Holtzheimer, Frank Andrew Kozel, Patricio Riva-Posse, Anthony Rodgers
Efficacy and Safety of Repeated Subcutaneous Ketamine Injections for Treatment Resistant Depression – The KADS Study: A Randomised, Double-Blind, Comparator-Controlled Trial
(accepted *B J Psych* May 2023).
17. Forbes, E., Clover, K., Baker, A. L., Britton, B., Carlson, M., McCarter, K. (2023). 'Having the mask on didn't worry me until . . . they clamped my head down so I wouldn't move': A qualitative study exploring anxiety in patients with head and neck cancer

during radiation therapy. *Journal of Medical Radiation Sciences*, doi: 10.1002/jmrs.658

18. McGill, K., Whyte, I.M., Sawyer, L., Adams, D., Delamothe, K., Lewin, T.J., Robinson, J., Kay-Lambkin, F.J. and Carter, G.L. (2022). Effectiveness of the Hunter Way Back Support Service: An historical controlled trial of a brief non-clinical after-care program for hospital-treated deliberate self-poisoning. *Suicide and Life-Threatening Behavior* 52, 500– 514. <https://doi.org/10.1111/sltb.12840>
19. Heard, T.R., McGill, K., Skehan, J. & Rose, B. (2022). The ripple effect, silence and powerlessness: Hidden barriers to discussing suicide in Australian Aboriginal communities. *BMC Psychology* 10(23). <https://doi.org/10.1186/s40359-022-00724-9>
20. McGill, K., Bhullar, N., Batterham, P., Carrandi, A., Wayland S. & Maple, M. (2022) Key issues, challenges, and preferred supports for those bereaved by suicide: Insights from postvention experts, *Death Studies*. <https://doi.org/10.1080/07481187.2022.2112318>
21. McGill, K., Bhullar, N., Pearce, T., Batterham, P. J., Wayland, S., & Maple, M. (2022). Effectiveness of brief contact interventions for bereavement: A systematic review. *OMEGA - Journal of Death and Dying*, 0(0). <https://doi.org/10.1177/00302228221108289>
22. Zbukvic, I., Rheinberger, D., Rosebrock, H., Lim, J., McGillivray, L., Mok, K., Stamate, E., McGill, K., Shand, F. & Moullin, J. C. (2022). Developing a tailored implementation action plan for a suicide prevention clinical intervention in an Australian mental health service: A qualitative study using the EPIS framework. *Implementation Research and Practice*, 3, 26334895211065786.

CONFERENCE PRESENTATIONS

1. **Rates Of Procedural Anxiety During Radiotherapy And Next Steps**
Forbes E, Clover K., Baker AL, McCarter K, Carter G, Wratten C, Tieu MT, Kumar M, Oultram S, Nixon J, Britton B.
Australian Association for Cognitive and Behaviour Therapy (AACBT). October 2022.
Poster presentation and rapid-fire oral presentation of a poster (awarded best student poster)
2. **Suicide Prevention in Clinical Settings (in Suicide Prevention in the Health Sector)**
Prof Greg Carter
HMRI Health Minds Seminars. Suicide Prevention Flagship. Newcastle. September 2022
3. **Stream 1: Individual Approaches and Lived Experience to Prevention of Self-harm**
Prof Greg Carter, Panel member Lancet Commission on Self-harm
Summit on Self-Harm. Blackdog Institute, Pyrmont Sydney. November 2022.

4. **Indigenous cultural identify and likelihood of discharge to psychiatric hospital after deliberate self-poisoning.**
McGill K, Salem A, Hanstock TL, Heard TR, Garvey L, Leckning B, Whyte I, Page A, Carter G. International Association of Suicide Prevention Asia Pacific Conference. Gold Coast. July 2022. Presentation.
5. **Hospital treated self-harm: Improving data to improve care.**
Dr Katie McGill
Lancet Commission on Self-harm: Self-Harm Summit- Early Career Researcher Workshop. Rapid fire presentation. Pyrmont, November 2022.
6. **Did introduction of a suicide prevention care pathway change Mental Health Service practice?**
Dr Katie McGill
International Association of Suicide Prevention Australasian Research Workshop. Melbourne, February 2023.
Rapid fire presentation (awarded best 'lightning' presentation).

RESEARCH FUNDING/GRANTS

1. 2020 Australian Government Department of Health, MRFF Million Minds Mission Suicide Prevention - APP1200195
Developing a Comprehensive Care Pathway For those at Risk of Suicide But Not in Care: The Under the Radar Project
CIs: Helen Christensen, Samuel Harvey, Gregory Carter, Svetha Venkatesh, Katherine Boydell, Henry Cutler, Ian Kneebone, Toby Newton-John, Jin Han, Kit Huckvale.
\$3.7M over 5 years (2020-2024)
2. 2022 National Suicide Prevention Leadership and Support Program Grant APP 9CA84M4
LIFEWAYS - Translating suicide prevention research into policy and practice
Pirkis, J. Reifels, L. Currier, D. Andriessen, K. Krysinska, K. Robinson, J. Phelps, A. Francis, J. Eades, S. Shand, F. Tye, M. Larsen, M. Kolves, K. Carter, G. Neil, A. Skehan, J. Diminic, S. Edwards, B.
\$2,601,201 over three years (2022-2024).
3. 2022 NSW Health Rural Research Capacity Building Grant.
A pilot effectiveness implementation study utilising telehealth to increase access to dialectical behaviour therapy for consumers in rural areas diagnosed with borderline personality disorder
Walton, C., McGill, K., Dunbar, A. & Gonzalez, S. \$97 000 over two years (2022-2023).
4. 2023 Hunter Medical Research Institute-Healthy Minds Seed Funding.
Collaborative suicide prevention priority setting within the Hunter New England region.

McGill, K., Skehan, J., Potter, A. & Peprah, J. \$5 000 over one year (2023).

CLINICAL TRIALS

1. Britton, B., Baker, A. L., Wolfenden, L., Wratten, C., Bauer, J., Beck, A. K., McCarter, K., & Carter, G.
Five-year mortality outcomes for Eating As Treatment (EAT), a health behaviour change intervention to improve nutrition in patients with head and neck cancer: a stepped-wedge, randomised controlled trial
2. Garry John Stevens, Sandro Sperandei, Gregory Leigh Carter, Sithum Munasinghe, Trent Ernest Hammond, Naren Gunja, Vlasios Brakoulis, Andrew Page
SMS SOS: A randomised trial of the efficacy of a Short Message Service (SMS) brief contact intervention in reducing repetition of hospital-treated self-harm
3. Colleen Loo, Nick Glozier, David Barton, Bernhard Baune, Natalie Mills, Paul Fitzgerald, Paul Glue, Shanthi Sarma, Veronica Galvez-Ortiz, Dusan Hadzi-Pavlovic, Angelo Alonzo, Vanessa Dong, Donel Martin, Stevan Nikolin, Philip Mitchell, Michael Berk, Gregory Carter, Maree Hackett, John Leyden, Sean Hood, Andrew Somogyi, Kyle Lapidus, Elizabeth Stratton, Ellen Lyrtzis, Kirsten Gainsford, Shona Neehoff, Deepak Garg, Nicolette Thornton, Céilia Fourier, Karyn Richardson, Demi Rozakis, Anish Scaria, Cathrine Mihalopoulos, Mary Lou Chatterton, William McDonald, Philip Boyce, Paul Holtzheimer, Frank Andrew Kozel, Patricio Riva-Posse, Anthony Rodgers
Efficacy and Safety of Repeated Subcutaneous Ketamine Injections for Treatment Resistant Depression – The KADS Study: A Randomised, Double-Blind, Comparator-Controlled Trial
4. Forbes, E., Clover, K., Baker, A. L., McCarter, K. Oultram, S., Kumar, M., Wratten, C., Tier, M. T., Nixon, J., Britton, B. (2022).
Biofeedback Enabled CALM (BeCALM) - the feasibility of biofeedback on procedural anxiety during radiation therapy: study protocol for a pilot randomised controlled trial.

MILESTONES, ACHIEVEMENTS, ETC

1. PhD Graduation
Alison Beck, PhD Candidate, School of Medicine and Public Health, Faculty of Health and Medicine. Translating Motivational Interviewing and Behaviour Change Techniques into Dietetic Interventions
(2018-2022) Primary Supervisor Professor

Amanda Baker, Co-supervisor Ben Britton and G Carter.

2. PhD Completion

Dr Katherine McGill, PhD Candidate, School of Medicine and Public Health, Faculty of Health and Medicine, University of Newcastle. Improving self-harm data to improve care- The case for a clinical (quality) register in Australia (2019-2022). Principal Supervisor: Professor Frances Kay-Lambkin Co-Supervisors: Gregory Carter, Jo Robinson

3. PhD Submission

Erin Forbes, PhD Candidate, School of Medicine and Public Health, Faculty of Health and Medicine, University of Newcastle.

An Exploration of Procedural Anxiety in Patients Undergoing Radiation Therapy
Principal Supervisor: Professor Amanda Baker, then Dr Kerrie Clover (Nov 22 onwards); Co-Supervisors: Kristen McCarter, Benjamin Britton.

AWARDS

1. Best Student Poster

Erin Forbes (PhD Candidate)

Forbes, E., Clover, K., Baker, A. L., McCarter, K., Carter, G., Wratten, C., Tieu, M. T., Kumar, M., Oultram, S., Nixon, J., Britton, B. Rates of Procedural Anxiety During Radiotherapy and Next Steps. Australian Association for Cognitive and Behaviour Therapy (AACBT) National Conference (2022)

2. University of Newcastle Dean's Higher Degree Research Award - Research Excellence. 2022.

Katie McGill (PhD candidate).

3. Hunter New England Local Health District - Mental Health Service. Collaborative Leader of the Year. 2023. Katie McGill.

4. Hunter New England Local Health District - Psychology. Closing the Gap Award. 2022. Katie McGill.

PROFESSIONAL SERVICE

1. Dr Kerrie Clover, served as National Convenor for the Australian Psychological Society Interest Group - Psychologists in Oncology
2. Dr Katie McGill served as Deputy Director of Hunter Medical Research Institute: Healthy Minds Research Program.

Haematology

OVERVIEW

The Haematology Unit engages in both clinical and laboratory-based research. Clinicians and nurses are actively involved in research directed at improving patient care, while the department also supports dedicated laboratory and clinical trials teams. The Staff Specialists are committed to providing quality training to haematology registrars. Many of the staff hold conjoint appointments with the University of Newcastle and engage in teaching undergraduate medical

students and supervising higher research degrees. The Unit is fortunate to have strong community support and is grateful for all the generous donations received in 2021-2022. The ongoing COVID-19 pandemic continues to provide challenges for staff and students.

HAEMATOLOGY CLINICAL TRIALS

- **Unit Manager:** Kath Hall
- **Senior Clinical Trial Coordinators/Team Leaders:** Joanne Smart, Tara Novak, Nick Stankovich
- **Clinical Trial Coordinators:** Cheryl Cairney, Katie Oleksyn, Cassandra Bird, Klara Jakimovski, Netsi Negewo, Leanne DeGroot, Margo Hughes, Kenway Yeoh, Lauren Jones
- **Senior Data Manager:** Afrin Farjana (Acting Maternity Relief), Natasha Winter
- **Data Managers:** Jared Nichols, Mohit Sharma
- **Systems Manager:** Alesia Ogrodnik
- **Administrative/Ethics & Governance:** Patricia Rozanski
- **Finance Officer:** Karen Kincaid, Fiona Lunsman,
- **Start Up Team:** Fiona Lunsman, Kylie Cox
- **Laboratory Technical Officers:** Kylie Cox, Bryn Rollinson
- **Clinical Trial Lead Staff Specialist:** Wojt Janowski

In the past 12 months, the Haematology Clinical Trials Unit has activated nine new clinical trials for haematological malignancies Acute Myeloid Leukaemia, Chronic Lymphocytic Leukemia and Multiple Myeloma with trials for Myelofibrosis, Mantle Cell Lymphoma and Diffuse Large B-Cell Lymphoma ongoing. In the past year, the unit has recruited 54 new participants to various studies looking into these diseases.

The unit's portfolio consists of research projects in various stages from determining feasibility through to completed and published research. Currently the unit has 13 studies in the start-up phase, 21 studies open to recruitment and 34 studies closed to recruitment with active participants on treatment or in follow up. These studies are either administered by the ALLG, the Australasian Myeloma Research Consortium (AMaRC), sponsored by pharmaceutical companies or investigator initiated.

Multiple Myeloma continues to be an area of significant research with some exciting new projects underway. We opened the CARTITUDE-5 study in 2022 and have recruited three participants to this cutting edge clinical trial. It is anticipated the first collections and infusions related to CAR-T will be in 2024. The Haematology Trials unit has been selected as a site for a number of early phase 1b trials in multiple myeloma providing access to new and cutting edge treatments to participants.

Staff Specialist Wojt Janowski was successfully

appointed the new Clinical Trial Lead and will contribute to a renewed focus on CMN investigator initiated research projects. One such project is being coordinated by Dr Ritam Prasad and Dr Lisa Lincz looking at a new complement activity assay.

In late 2022 HCT underwent a restructure that saw the introduction of three tumour stream dedicate teams with the appointment of a Team Leader to each, the introduction of a Senior Data Manager Role and a dedicated Start Up Team to provide a more streamlined and professional approach for the conduct of Clinical Trials, a format which we are continuing to consolidate. A larger team also has the potential for more frequent movement of staff.

The unit's support team has grown throughout the year, adding three new positions. Alesia Ogrodnik has been appointed Systems Manager and is responsible for the management of the Maisi platform and the transition to the new NSW Health clinical trial management system due in late 2022. The team also welcomed Fiona Lunsman as a new Start Up Coordinator and Brynley Rollinson as a new Laboratory Technician. Our Clinical Trial Coordinators continue to manage the unit's growing portfolio and we welcomed Kenway Yeoh, Cassandra Bird, Lauren Jones and Netsi Negewo to the team in 2022-2023.

In the 2022-23 period, the unit continued to grow, develop its its structure and processes to enable the provision and access to clinical trials for various Haematological diseases.

BONE MARROW STEM CELL TRANSPLANT RESEARCH

Philip Rowlings, Sam Yuen, Louisa Brown, Hong Zhang, Linda Welschinger, Geordie Zauders

Patient transplant data are reported to the Australian Bone Marrow Transplant Recipients Registry (ABMTRR) as part of Australian Bone Marrow Transplant (BMT) research and development. These data are also part of the Asia Pacific Bone Marrow Transplant (APBMT) research group. The CMN Unit is the lead site on the ethics application for data collection of the NSW BMT Network, a subgroup of the Agency for Clinical Innovation (ACI) of the Clinical Excellence Commission (CEC), of the NSW Ministry of Health.

VENOUS THROMBOEMBOLISM AND TRANSFUSION RESEARCH

Dr Ritam Prasad, Dr Kate Melville, Dr Jillian De Malmanche, and Dr Anoop Enjeti

Practise changing audits and interventions have been important contributions in these areas with Dr Anoop Enjeti as chair of area transfusion committee and Dr Melville as chair of the area venous thromboembolism (VTE) committee. Dr Melville is also involved in Obstetric Haematology.

LABORATORY RESEARCH - THE HUNTER HAEMATOLOGY RESEARCH GROUP

Lisa Lincz, Fiona Scorgie, Anoop Enjeti, Ritam Prasad

The Haematology Research Laboratory conducts studies into haematological cancers and disorders of coagulation. The laboratory is linked to the University of Newcastle and offers training to registrars and students.

As always, the group maintains strong collaborations with researchers nationally and internationally through memberships with various societies: Australasian Leukaemia and Lymphoma Group (ALLG), Thrombosis and Haemostasis society of Australia and New Zealand (THANZ), International Society on Thrombosis and Haemostasis (ISTH); Berlin-Bernhard-Münster Paediatric Acute Lymphoblastic Leukaemia (BFM-ALL); as well as through individual collaborations with researchers at Royal North Shore Hospital and the Children's Cancer Institute, Randwick; and locally with the departments of Neurology (JHH), Molecular Medicine (NSW Health Pathology- JHH), Medical Oncology (CMN), Hunter Medical Research Institute, and the School of Biomedical Sciences and Pharmacy (U of Newcastle).

Clinical and laboratory researchers from the haematology unit make up a large proportion of the Blood Cancer component within the newly announced Precision Medicine Research Program within the Hunter Medical Research Institute. This program forms connections between basic medical research and patient-centred intervention studies with the ultimate aim of identifying the most appropriate treatments for individual patients by deciphering the characteristics of complex diseases – providing the right treatment for each patient at the right time.

RESEARCH HIGHER DEGREES

Characterising a new potential regulator of AML cell invasion. D Theron (BSc. Hons 2022) Supervisors: K Skelding and L Lincz

UNDERGRADUATE MEDICAL STUDENT PROJECTS (UNIVERSITY OF NEWCASTLE)

Can we be certain about uncertainty? E Johnston, N Walker, N Mansell, O Fahey. Supervisors: A Enjeti, D Mossman, L Lincz.

RESEARCH FUNDING

Precision Medicine program -2021 HMRI MRSP - Cancer Program \$286,439.00

Cracking the Code: The launch of a genomic, epigenetic and proteomic pre-clinical platform to improve the treatment of paediatric leukaemias \$122,000.00

CONFERENCE AND MEETING PROCEEDINGS

1. American Society of Hematology 2021

Indran, T., M. Swain, J. Widjaja, F. Yuen, H. Quach, **W. Janowski**, A. Hutchinson, C.T. Wallington-Beddoe, J. Estell, I.H. Kerridge, and A. Spencer, The Effect of Daratumumab, Lenalidomide, Dexamethasone (DRD) on Peripheral Blood Stem Cell Mobilisation (PBSC). *Blood*, 2021. **138**(Supplement 1): p. 3884-.DOI: 10.1182/blood-2021-150444.

Lim, S.-I., J. Reynolds, H. Quach, A.

Hutchinson, I.H. Kerridge, J. Estell, W. Janowski, C.T. Wallington-Beddoe, A. Kalf, F. Yuen, and A. Spencer, Preliminary Analysis of the MM21 Trial: Response Adaptive Salvage Treatment with Daratumumab-Lenalidomide-Dexamethasone (DRD) for Newly Diagnosed Transplant Eligible Multiple Myeloma Patients Failing Front-Line Bortezomib-Based Induction Therapy. *Blood*, 2021. 138(Supplement 1): p. 1665-. DOI: 10.1182/blood-2021-152102.

Mollee, P., J. Reynolds, **W. Janowski**, H. Quach, P. Campbell, S.D. Gibbs, S. Lee, J. D'Rozario, K. Taylor, T. Cochrane, C.T. Wallington-Beddoe, F. Kwok, N. Weber, I.H. Kerridge, H. Weston, P.J. Ho, N. Horvath, F. Yuen, and A. Spencer, A Randomized Study of Bortezomib, Cyclophosphamide and Dexamethasone Induction (VCD) Versus VCD and Daratumumab Induction Followed By Daratumumab Maintenance (VCDD) for the Initial Treatment of Transplant-Ineligible Patients with Multiple Myeloma (AMaRC 03-16). *Blood*, 2021. **138**(Supplement 1): p. 2728-.DOI: 10.1182/blood-2021-152500.

Ninkovic, S., N.E. Murphy, H. Sidiqi, C.T. Wallington-Beddoe, A. Puliayil, C.K. Yannakou, **W. Janowski**, F. Yuen, A. Spencer, and H. Quach, Isatuximab Rescue for Inadequate Response to Lenalidomide and Dexamethasone in Transplant Ineligible Patients with Newly Diagnosed Multiple Myeloma: Interim Analysis of the Phase II Iril Study of the Australian Myeloma Research Consortium (AMaRC 18-02). *Blood*, 2021. **138**(Supplement 1): p. 1671-.DOI: 10.1182/blood-2021-151871.

Usmani, S.Z., A. Alonso Alonso, H. Quach, Y. Koh, A. Guenther, C.-K. Min, X.L. Zhou, M. Kaisermann, L.M. Mis, D. Williams, A. Yeakey, G. Ferron-Brady, D.J. Figueroa, B.E. Kremer, I. Gupta, and **W. Janowski**, DREAMM-9: Phase I Study of Belantamab Mafodotin Plus Standard of Care in Patients with Transplant-Ineligible Newly Diagnosed Multiple Myeloma. *Blood*, 2021. **138**(Supplement 1): p. 2738-.DOI: 10.1182/blood-2021-153315.

2. European Hematology Association 2022

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Jock Simpson, Cathie Milton, Karan Makhija, Wojt Janowski. A retrospective audit of early discharge (day +1) following autologous stem cell transplantation

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Danielle Theron, Daniel Barry, **Anoop Enjeti, Jonathan Sillar, Lisa Lincz**, Kathryn Skelding. Increased ENO1 mRNA expression is a potential negative prognostic biomarker of AML patient survival

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- Co-chair, Acute Leukaemia working party, ALLG
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Linda Welschinger

- CCS, Blood & Marrow Transplant Laboratory
- Member, ACI BMT Laboratory Working Group

Geordie Zaunders

- Laboratory Manager, Blood & Marrow Transplant Laboratory
- Member, ACI BMT Laboratory Working Group

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MEDICAL ONCOLOGY RESEARCH (MOR)

MOR TRIALS:

- **Investigators:** Dr Howard Chan, Dr Fiona Day, A/Prof Craig Gedye, Dr Janine Lombard, Dr James Lynam, Dr Girish Mallesara, Dr Hireen Mandaliya, Dr Ina Nordman, Dr Tin Quah and Dr Andre van der Westhuizen
- **Clinical Trial Fellow:** Dr Nikhil Pande
- **Clinical Trial Manager:** Kim Adler
- **Senior Clinical Trial Coordinators:** Kerrie Cornall, Jennifer McFarlane and Gail Walker
- **Clinical Trial Coordinators:** Kiriilee Askew, Rebecca Aitken, Kelly Barker, Bronwyn Crawford, Olivia Fitzgibbon, Rochelle Jones, Saba Kugashiya, Seren Langlands, Caitlyn McHugh, Emily Munn, Emily Millington and Megan Walker
- **Finance Coordinator:** Alison Leonard-England
- **Ethics Coordinator:** Allison Kautto
- **Start-up Coordinator:** Lisa Paksec
- **Systems Coordinator:** Anthony Morrison
- **Senior Data Manager:** Jessica Aldcroft
- **Data Managers:** Nicole Hingerty, Jaishree Jalewa, Jye Lobasso, Bridgette Donati and Deepika Radhakrishnan
- **Laboratory Technicians:** Bridgette Donati and Deepika Radhakrishnan

2022-23 has seen many staff changes in Medical Oncology.

We bid a fond farewell to A/Prof Craig Gedye who left for greener pastures in Adelaide. Craig achieved great things and was a huge advocate for clinical trials. He chaired the CMN clinical trials subcommittee leading us to improve trial processes. He is most remembered as a patient advocate and a collaborative researcher. While at MOR he developed many investigator initiated studies including EnzAdapt and TaxAdapt in prostate cancer. These resulted

in the larger phase III study ANZadapt in collaboration with ANZUP. He also developed MAGMA in GBM in collaboration with COGNO. We wish him every success.

Over the past year MOR Trials opened 14 new clinical trials to recruitment across the Hunter New England health district - covering breast, colorectal, gastroesophageal, lung, melanoma, head and neck cancer, bladder, pancreas, renal, testicular, ovarian, and non-melanoma skin cancer.

As of 30 June 2023, 45 trials were actively recruiting participants, 5 trials remained on hold and another 7 trials were pending approval to commence. These trials were a mixture of phase 1b, II & III cooperative group, pharmaceutical sponsored studies and investigator initiated studies.

Overall 189 patients were offered the opportunity to participate in a clinical trial. Of these 137 have been enrolled into a clinical trial.

MOR EXPERIMENTS

- **Director of MOR Laboratory and Chief Hospital Scientist:** Assoc Prof Jennette Sakoff
- **Hospital Scientists:** Dr Jayne Gilbert and Madhu Garg

Over the year MOR has expanded its research in the development of novel agents for the treatment of pancreatic cancer. We have officiated a research agreement with the Professor Phoebe Phillips and Dr George Sharbeen at the University of NSW (Lowy Institute). This agreement has allowed us to expand our cell culture models including the use of cancer associated fibroblasts from a number of pancreatic cancer patients. These new models will add to our laboratory tools to test and screen new molecules. We have also expanded our long held collaboration with Professor Janice Aldrich-Wright at the University of Western Sydney. This collaboration has been productive and culminated in the development of novel platinum based molecules for the potential treatment of ovarian cancers.

Consumer engagement with cancer support groups is important and has continued throughout 2023. The Boobs Bubbles Breakfast kindly hosted by Fran King and Karen Goodsir raised significant funding of \$15,000 for research at their annual breakfast event at Pokolbin. Mount Thorley CFMEU (Construction, Forestry, Mining and Energy Union) have also continued their support with a kind donation of \$5,000.

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 17. Building staff capability, opportunity, and motivation to provide smoking cessation to people with cancer in Australian cancer treatment centres: development of an implementation intervention framework for the Care to Quit cluster randomised controlled trial, Annika Ryan, Alison Luk Young, Jordan Tait, Kristen McCarter, Melissa McEnallay, **Fiona Day**, James McLennan, Catherine Segan, Gillian Blanchard, Laura Healey, Sandra Avery, Sarah White, Shalini Vinod, Linda Bradford, Christine L Paul, *Health Services and Outcomes Research Methodology*, 2022, 1-33.
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 19. Phase II confirmatory study of cemiplimab (350mg IV Q3W) in patients with locally advanced or metastatic cutaneous squamous cell carcinoma (CSCC): Study 1540 Group 6, BGM Hughes, JJ Grob, SE Bowyer, **FL Day**, R Ladwa, B Stein, E Munoz Couselo, N Basset-Seguine, A Guminski, L Mortier, A Hauschild, MR Migden, C Schmults, SY Yoo, J Booth, F Seebach, I Lowy, MG Fury, D Rischin, *ANNALS OF ONCOLOGY*, 2022, 33 (7), S921-S921.
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- ### CONFERENCE POSTERS
1. Hill J, Brungs D, Aghmesheh M, Ackland SP, Parker S, Jokela R, Garg MB, Ranson D, Clingan PR (2023) A phase 1b dose escalation of a novel co-formulation of 5-fluorouracil and leucovorin to determine pharmacokinetics, safety, tolerability and maximum tolerated dose in patients with advanced malignancy after failure of standard treatment. *ESMO 2023 Trial In Progress Poster*
 2. **Garg MB, Sakoff J**, Ackland,SP (2022) A simple and rapid HPLC method for the simultaneous measurement of plasma Leucovorin and its metabolite in cancer patients undergoing treatment for their disease. *Cancer and Precision Medicine Symposium Asia-Pacific Journal of Clinical Oncology, Volume:18 SI Supplement: 5 Pages: 22*
 3. ASCO 2023. Circulating Tumor DNA (ctDNA) as a Marker of Residual Disease and Recurrence in Resected Stage I-IV Epithelial Ovarian Cancer (EOC). Sumitra Ananda, Yuxuan Wang, Wei Hong, Gary Richardson, **Janine Lombard**, Geraldine Goss, Linda Mileshkin, Christopher Steer, Anne Marie O'Broin-Lennon, Orla McNally, Christopher Douville, Maria Popoli, Janine Ptak, Natalie Silliman, Lisa Dobbyn, Nicholas Papadopoulos, Kenneth W. Kinzler, Bert Vogelstein, Jeanne Tie, Peter Gibbs
 4. ASCO 2023. Molecular tumor profiling and therapy selection in advanced gynecological cancers: a retrospective cohort analysis from the Australian Molecular Screening and Therapeutics (MoST) Program. Damien Kee et al
 5. MOGA 2022. What is women with breast cancers' experience and perception of genitourinary symptoms? Dr Antonia Pearson et al.
 6. MASCC June 2023. The impact of timing: Does antiemetic premedication timing affect chemotherapy induced nausea and vomiting (CINV)? **Laura Healey** et al.
 7. Garg M, Sakoff J, Ackland,SP (2022) A simple and rapid HPLC method for the simultaneous measurement of plasma Leucovorin and its metabolite in cancer patients undergoing treatment for their disease. *Cancer and Precision Medicine Symposium Newcastle Nov 2022*.
- ### CONFERENCE ORAL PRESENTATIONS
1. **Janine Lombard**. ANZGOG ASM March 2023, Repurpose study: Efavirenz in

platinum resistant ovarian cancer; a phase 2 signal seeking study.

2. **Laura Healey.** AONSC 2023, Left Ventricular Ejection fraction in patients receiving Herceptin: when do cardio-oncology step in?
3. **Fiona Day.** PALEO at AGITG ASM November 2022, Melbourne, in Upper GI Trials in Progress session.
4. **Jennette Sakoff.** Oral Presentation. Aryl Hydrocarbon Receptor and Breast Cancer. Cancer and Precision Medicine Symposium Newcastle Nov 2022.
5. **Jennette Sakoff.** Oral Presentation. Aryl Hydrocarbon Receptor. Cancer Detection and Therapy Research. Symposium Retreat. Newcastle May 2023.

GRANT FUNDING

1. **Garg MB, Day F, Lynam J** (2022) HPLC and data analysis infrastructure support for therapeutic drug monitoring in cancer patients. HCRA Clinical Cancer Research Fund (CCRF): \$10,231
2. **Garg, MB, Lynam J.** (2022) Mitotane pharmacodynamics in Adrenocortical cancer in Children and Adults. CMN Margaret Mitchell Research project Grant, \$25,000
3. **Garg MB, Ackland SP** (2023) Additional samples analysis for pharmacokinetics (PK) of 5-Flourouracil and Leocovorin in Phase 1B Study of Deflexifol in patients with advanced malignancy after failure of standard treatment. Destamma Investments Pty Ltd, Austinmer, NSW \$30,000
4. **Sakoff JA and Gilbert J** (2023). The AHR pathway and breast cancer selectivity". Oncology Research Grant Calvary Mater Newcastle. \$34,650.
5. **Sakoff J.** New platinum compounds as potential anti-cancer drugs (2023). Centre Drug and Therapeutics. University of Newcastle. \$7,500.
6. **Gilbert, J. and Sakoff, J.** Maintenance of essential equipment in the processing and storage of patient samples. \$4275 2022. Clinical Cancer Research Fund.
7. **Sakoff JA and Gilbert J** (2023) Infrastructure for processing and storage of patient blood and tissue samples. HCRA Clinical Cancer Research Fund (CCRF). \$5560
8. **Janine Lombard.** Associate Investigator. ICON9: A phase 3 randomised trial of cediranib and olaparib maintenance in patients with relapsed platinum sensitive ovarian cancer. 2022/GNT2014936. \$494131.60.
9. **Fiona Day.** Associate Investigator. 2023 Cure Cancer Research Grant. Harnessing long noncoding RNAs for colorectal cancer early diagnosis and treatment.

DEPARTMENT OF PALLIATIVE CARE

RESEARCH FUNDING/GRANTS

1. Fern Beschi - HNELHD Palliative Care Flexible Funding Pool for 2023/2024: "HNELHD Palliative Care Pharmacy Project – safety and efficacy of 48 hour infusion pumps" (\$34,100)
2. Fern Beschi - 2023 Calvary Mater Newcastle Clinical Cancer Research Fund: "Drug stability and compatibility pharmaceutical research equipment for cancer patients requiring subcutaneous infusions" (\$9033.42)

OTHER RELEVANT MATERIAL

Miromullia Project (Awabakal language, continue to take care of)

Project Lead: Julie Rose

In 2021, Calvary Mater Newcastle had the opportunity to pause and reflect on how palliative care was being delivered to its local Aboriginal and/or Torres Strait Islander community. It was identified that a model of care, culturally safe and effective for Indigenous communities, as well as staff, was best informed through understanding of needs, preferences and experience of the community. Consulting with the Aboriginal Health Unit and local Land Councils, a partnership was developed to consult with the community to create a best practice framework for care. Further, it was agreed that it was acceptable and optimal that this project was undertaken within a research framework to ensure the process is ethical and meaningful, that the voices of community members are respected and represented authentically.

Steps completed to date:

- Employment of an Aboriginal Project Coordinator (Julie Rose), and establishment of an Aboriginal Advisory Group
- Co-design of methodological approach in consultation with Aboriginal Advisory Groups and academic bodies.
- Attainment of ethical clearance from the national Aboriginal Health and Medical Research Council and local ethics committees.
- Completion of community survey and community and health professional yarning, with good community support.
- New Aboriginal Health Worker position description populated, reviewed and advertised.

Next steps:

Analysis of results is in progress, with feedback to Aboriginal Advisory Group is the next step prior to wider sharing of findings.

Lessons learnt from this approach so far have highlighted the need for such a project to have a strong Aboriginal lead and strong community support. It is hoped that this project will continue to facilitate collaborative relationship across services to improve experience and meet needs of patients, family and communities accessing specialist palliative care. It is also

hoped that the consultative research model may prove translatable and inform ongoing culturally safe service design models.

Lessons learnt from this approach so far have highlighted the need for such a project to have a strong Aboriginal lead and strong community support. It is hoped that this project will continue to facilitate collaborative relationship across services to improve experience and meet needs of patients, family and communities accessing specialist palliative care. It is also hoped that the consultative research model may prove translatable and inform ongoing culturally safe service design models.

HPC3 (Hunter Palliative Community Coordinated Care)

Understanding need to enhance care in preferred place for patients and carers.

Project lead: Jessica Scaife

Supported through a MRFF grant in partnership with NSW Regional Health Partners, a randomised control trial is underway to identify best practice community palliative care service delivery and explore the role of care coordination in specialist palliative care. The research is designed to understand need in patients and carers, and the impact of earlier identification of distress and unmet need on the ability for patients to receive care in their preferred place.

Hunter Palliative Community Coordinated Care (known as HPC3) is a partnership with University of Newcastle, Hunter New England LHD, Hunter Medical Research Institute and Calvary Community Care. Health economic evaluation and comprehensive cost consequence analysis has been embedded in the research design to better inform ongoing service development in specialist palliative care.

Recruitment to this study was commenced in May 2021 and within 11 months, the group has achieved the milestone of full participant recruitment (n=500), and data analysis is underway.

Summary of other projects underway:

- Current practices in prescription and administration, and pharmacology of subcutaneous Levettiracetam in specialist palliative care - Fern Beschi
- Prognostic modelling to inform service delivery in specialist palliative care – Dr Sarah Moberley
- Validation of palliative care triage modelling in the local setting - Dr Ran May Saw
- Profile, needs and experience of brain cancer patients in the specialist palliative care inpatient setting - Dr Laura Bird
- A human centred design approach to education enabling palliative and end of life care in preferred place for residents of aged care facilities - Alisha Chand
- The Department of Palliative Care is also carrying out a project on CALD patients and families interactions with palliative care and Interpreter Service utilisation.

PhD candidate: Jessica Scaife continuing PhD(Medicine) candidature at the University of Newcastle, on the topic "A Randomised Controlled Trial of a Multidisciplinary Model of Community Palliative Care to Improve Patient-Centred Care in Preferred Place", supervised by Prof John Attia and Dr Moberley

Masters by research candidate: Fern Beschi continuing MPhil(Clinical Pharm) candidature at the University of Newcastle, on the topic "Levetiracetam Use in Palliative Care: Investigation of Levetiracetam Stability and Compatibility When Administered Alone or in Combination With Other Medications by Subcutaneous Infusion", supervised by A/Prof Jenny Schneider.

DEPARTMENT OF RADIATION ONCOLOGY

The last year has seen an ongoing significant research contribution from across the department's separate professions. Notable achievements include 45 journal publications with significant research publication contributions coming from Dr Jarad Martin (16), Dr Peter Greer (15) Dr Yuvnik Trada (7), Dr Joerg Lehmann (6) and Dr Swetha Sridharan (5). The radiation therapists have also continued to increase their year on year contribution to the department's research. The department also attracted over \$900 000 of competitive research funding and recruited 44 patients to various clinical trials.

JOURNAL ARTICLES AND PUBLICATIONS

During this reporting period members of this department contributed to approximately 45 journal articles and publications. Publications varied across subject and author with the largest contributors coming from the oncologist and physics backgrounds. Within these various publications, there were a variety of subject matters which can be broadly broken down into research areas such as:

1. Head and Neck

- Ewa Aren, Yuvnik Trada, Mark Lee, Shrikant Deshpande, Michael Jameson, Meredith Johnston, Megan Berry, Vanessa Estall, and Allan Fowler. "Identifying the Location of Locoregional Recurrences after Definitive Radiotherapy for Head and Neck Cancer Using Metabolic Parameters of Baseline and Mid-Treatment 18F-Fdg-Pet Scans." *Journal of Medical Imaging and Radiation Oncology* 67 (10/27 2022). <http://dx.doi.org/10.1111/1754-9485.13486>.
- Claire Jeans, Bena Brown, Elizabeth C. Ward, Anne E. Vertigan, Amanda E. Pigott, Jodie L. Nixon, Chris Wratten and May Boggess "A Prospective, Longitudinal and Exploratory Study of Head and Neck Lymphoedema and Dysphagia Following Chemoradiotherapy for Head and Neck Cancer." *Dysphagia* 38, no. 4 (29/10/2022 2023): 1059-71. <http://dx.doi.org/10.1007/s00455-022-10526-1>.
- Kristen McCarter, Amanda L. Baker,

Luke Wolfenden, Chris Wratten, Judith Bauer, Alison K. Beck, Erin Forbes, Gregory Carter, Lucy Leigh, Christopher Oldmeadow, Ben Britton"Smoking and Other Health Factors in Patients with Head and Neck Cancer." *Cancer Epidemiol* 79 (21/06/2022 2022): 102202. <http://dx.doi.org/10.1016/j.canep.2022.102202>.

- Lachlan McDowell, Danny Rischin, Madeleine King, Lizbeth Kenny, Sandro Porceddu, Chris Wratten Andrew Macann, James E. Jackson, Mathias Bressel, Tsien Fua, Charles Lin, Chen Liu, June Corry. "Patient- and Clinician-Reported Outcomes in Human Papillomavirus-Associated Tonsillar Carcinoma Treated with Unilateral and Bilateral Intensity Modulated Radiation Therapy-a Substudy from Trog 12.01." *Int J Radiat Oncol Biol Phys* 115, no. 1 (01/01/2023 2023): 174-88. <http://dx.doi.org/10.1016/j.ijrobp.2022.08.006>.
- Danny Rischin, Hisham Mehanna, Richard. J. Young, Mathias Bressel, Janet Dunn, June Corry, Pinki Soni, Tessa Fulton-Lieuw, Gulnaz Iqbal, Lizbeth Kenny, Sandro Porceddu, Chris Wratten, Max Robinson, and Benjamin J. Solomon. "Prognostic Stratification of Hpv-Associated Oropharyngeal Cancer Based on Cd103(+) Immune Cell Abundance in Patients Treated on Trog 12.01 and De-Escalate Randomized Trials." *Ann Oncol* 33, no. 8 (07/09/2022 2022): 804-13. <http://dx.doi.org/10.1016/j.annonc.2022.04.074>.
- Christopher Rumley, Christian Hansen, Michael Jameson, Yuvnik Trada, Jørgen Johansen, Niels Gyldenkerne, Jesper Eriksen, Farhannah Aly, Rasmus Christensen, Mark Lee, Carsten Brink, and Lois Holloway. "Delineation Uncertainties of Tumour Volumes on Mri of Head and Neck Cancer Patients." *Clinical and Translational Radiation Oncology* 36 (08/01 2022). <http://dx.doi.org/10.1016/j.ctro.2022.08.005>.
- Yuvnik Trada, Mark Lee, Michael Jameson, Phillip Chlap, Paul Keall, Daniel Moses, Peter Lin, and Allan Fowler. "Mid-Treatment 18f-Fdg Pet Imaging Changes in Parotid Gland Correlates to Radiation-Induced Xerostomia." *Radiotherapy and Oncology* 186 (06/01 2023): 109745. <http://dx.doi.org/10.1016/j.radonc.2023.109745>.
- Yuvnik Trada, Peter Lin, Mark Lee, Michael Jameson, Phillip Chlap, Paul Keall, Daniel Moses, and Allan Fowler. "Impact of Tumour Region of Interest Delineation Method for Mid-Treatment Fdg-Pet Response Prediction in Head and Neck Squamous Cell Carcinoma Undergoing Radiotherapy." *Quantitative Imaging in Medicine and Surgery* 13 (05/01 2023). <http://dx.doi.org/10.21037/qims-22-798>

2. Thorax

- Shankar Siva, Pitchaya Sakyanun, Tao Mai, Wenchang Wong, Adeline Lim, Joanna Ludbrook, Catherine Bettington, Angela Rezo, David Pryor, Nicholas Hardcastle, Tomas Kron, Braden Higgs, Hien Le, Marketa Skala, Suki Gill, Thomas Eade, Raef Awad, Giuseppe Sasso, Shalini Vinod, Rebecca Montgomery, David Ball, Mathias Bressel. "Long-Term Outcomes of Trog 13.01 Safron li Randomized Trial of Single- Versus Multifraction Stereotactic Ablative Body Radiotherapy for Pulmonary Oligometastases." *J Clin Oncol* 41, no. 19 (Jul 1 2023): 3493-98. <http://dx.doi.org/10.1200/jco.23.00150>.
- Elena N. Vasina, Natalie Kong, Peter Greer, Jose Baeza Ortega, Tomas Kron, Joanna J. Ludbrook, David Thwaites, Joerg Lehmann "First Clinical Experience with Real-Time Portal Imaging-Based Breath-Hold Monitoring in Tangential Breast Radiotherapy." *Phys Imaging Radiat Oncol* 24 (Oct 2022): 1-6. <http://dx.doi.org/10.1016/j.phro.2022.08.002>.

3. Gastrointestinal

- Day, Fiona, Swetha Sridharan, James Lynam, Craig Gedye, Catherine Johnson, Allison Fraser, Stephen R. Thompson, Michael Michael, Trevor Leong, Amitesh Roy, Mahesh Kumar, Andre van der Westhuizen, Gaik T. Quah, Hiren Mandaliya, Girish Mallesara, Joshua Sappiatzer, Christopher Oldmeadow, and Jarad Martin. "Chemoradiotherapy with Concurrent Durvalumab for the Palliative Treatment of Oligometastatic Oesophageal and Gastroesophageal Carcinoma with Dysphagia: A Single Arm Phase II Clinical Trial (Paleo, Sponsored by the Australasian Gastro-Intestinal Trials Group)." *BMC Cancer* 22, no. 1 (17/12/2022 2022): 1324. <http://dx.doi.org/10.1186/s12885-022-10407-8>.
- Fiona Day, Swetha Sridharan, Michael Michael, Louise Christophersen, Melissa M. Moore, Melissa A. Eastgate, Stephen Thompson, Angela Mweempwa, Christopher Oldmeadow, Allison Fraser, and Jarad Martin. "Chemoradiotherapy with Concurrent Durvalumab for the Palliative Treatment of Oligometastatic Esophageal and Gastroesophageal Carcinoma with Dysphagia: A Single Arm Phase 2 Clinical Trial, Paleo." *Journal of Clinical Oncology* 41, no. 16_suppl (01/06/2023 2023): TPS4172-TPS72. Accessed 2023/08/02. http://dx.doi.org/10.1200/JCO.2023.41.16_suppl.TPS4172.
- James Lonie, Sandra Brosda, Lauren Aoude, Vanessa Bonazzi, Kalpana Patel, Guy Lampe, Lambros Koufariotis, Venkateswar Addala, Scott Wood, Janine Thomas, Euan Walpole, Tao Mai, Stephen Ackland, Jarad Martin, Matthew Burge, Robert Finch, Christos Karapetis, Jenny Shannon, Louise Nott, Robert

- Bohmer, Kate Wilson, Elizabeth Barnes, John Zalcborg, B Mark Smithers, John Simes, Timothy Price, Val GebSKI, David Watson, John Pearson, Nic Waddell, Riccardo Dolcetti, and Andrew Barbour. "The Tumour Immune Microenvironment in Oesophageal Adenocarcinoma Has Prognostic Significance." *Diseases of the Esophagus* 35, no. Supplement_2 (24/09/2022 2022). Accessed 8/3/2023. <http://dx.doi.org/10.1093/dote/doac051.204>.
- Marjan M. Naeini, Felicity Newell, Lauren G. Aoude, Vanessa F. Bonazzi, Kalpana Patel, Guy Lampe, Lambros T. Koufariotis, Vanessa Lakis, Venkateswar Addala, Olga Kondrashova, Rebecca L. Johnston, Sowmya Sharma, Sandra Brosda, Oliver Holmes, Conrad Leonard, Scott Wood, Qinying Xu, Janine Thomas, Euan Walpole, G. Tao Mai, Stephen P. Ackland, Jarad Martin, Matthew Burge, Robert Finch, Christos S. Karapetis, Jenny Shannon, Louise Nott, Robert Bohmer, Kate Wilson, Elizabeth Barnes, John R. Zalcborg, B. Mark Smithers, John Simes, Timothy Price, Val GebSKI, Katia Nones, David I. Watson, John V. Pearson, Andrew P. Barbour, and Nicola Waddell. "Multi-Omic Features of Oesophageal Adenocarcinoma in Patients Treated with Preoperative Neoadjuvant Therapy." *Nature Communications* 14, no. 1 (31/05/2023 2023): 3155. <http://dx.doi.org/10.1038/s41467-023-38891-x>.
 - Marjan Naeini, Felicity Newell, Lauren G. Aoude, Vanessa F. Bonazzi, Kalpana Patel, Guy Lampe, Lambros T. Koufariotis, Vanessa Lakis, Venkateswar Addala, Olga Kondrashova, Rebecca L. Johnston, Sowmya Sharma, Sandra Brosda, Oliver Holmes, Conrad Leonard, Scott Wood, Qinying Xu, Janine Thomas, Euan Walpole, G. Tao Mai, Stephen P. Ackland, Jarad Martin, Matthew Burge, Robert Finch, Christos S. Karapetis, Jenny Shannon, Louise Nott, Robert Bohmer, Kate Wilson, Elizabeth Barnes, John R. Zalcborg, B. Mark Smithers, John Simes, Timothy Price, Val GebSKI, Katia Nones, David I. Watson, John V. Pearson, Andrew P. Barbour, and Nicola Waddell. "Multi-Omic Features of Oesophageal Adenocarcinoma Patients Pre-Treated with Preoperative Neoadjuvant Therapy." *Diseases of the Esophagus* 35, no. Supplement_2 (09/2022 2022). <http://dx.doi.org/10.1093/dote/doac051.280>.
 - Monchai Phonlakrai, Saadallah Ramadan, John Simpson, Neda Gholizadeh, Jameen Arm, Kate Skehan, Jonathan Goodwin, Yuvnik Trada, Jarad Martin, Swetha Sridharan, Bishnu Lamichhane, Steven Bollipo, and Peter Greer. "Determination of Hepatic Extraction Fraction with Gadoxetate Low-Temporal Resolution Dce-Mri-Based Deconvolution Analysis: Validation with Albi Score and Child-Pugh Class." *Journal of Medical Radiation Sciences* 70, no. S2 (11/09/2022 2023): 48-58. <http://dx.doi.org/https://doi.org/10.1002/jmrs.617>.
 - Swetha Sridharan, Fiona Day, Jasmin Loh, James Lynam, Joanne Smart, Brandan Holt, Hiren Mandaliya, Anthony Bonaventura, Mahesh Kumar, and Jarad Martin. "Phase I Trial of Hypofractionated Chemoradiotherapy in the Palliative Management of Esophageal and Gastro-Esophageal Cancer." *Radiation Oncology* 17, no. 1 (14/09/2022 2022): 158. <http://dx.doi.org/10.1186/s13014-022-02127-x>.
- #### 4. Genitourinary
- Danielle Chrystall, Adam Mylonas, Emily Hewson, Jarad Martin, Paul Keall, Jeremy Booth, and Doan Trang Nguyen. "Deep Learning Enables Mv-Based Real-Time Image Guided Radiation Therapy for Prostate Cancer Patients." *Physics in Medicine & Biology* 68, no. 9 (26/04/2023 2023): 095016. <http://dx.doi.org/10.1088/1361-6560/acc77c>.
 - Guneet Kaur, Joerg Lehmann, Peter Greer, Jarad Martin, and John Simpson. "Clinical Validation of the Varian Truebeam Intra-Fraction Motion Review (IMR) System for Prostate Treatment Guidance." *Physical and Engineering Sciences in Medicine* 46 (12/06 2022). <http://dx.doi.org/10.1007/s13246-022-01204-5>.
 - Jarad M. Martin, Matthew Richardson, Shankar Siva, Michael Cardoso, Marcus Handmer, and Mark Sidhom. "Mechanisms, Mitigation, and Management of Urinary Toxicity from Prostate Radiotherapy." *The Lancet Oncology* 23, no. 12 (01/12/2022 2022): e534-e43. Accessed 2023/08/02. [http://dx.doi.org/10.1016/S1470-2045\(22\)00544-7](http://dx.doi.org/10.1016/S1470-2045(22)00544-7).
 - Tamim Niazi, Sean Matthew McBride, Scott Williams, Ian D. Davis, Martin R. Stockler, Andrew James Martin, Hans T. Chung, Felicia Roncolato, Annie Ebacher, Eric Khoo, Jarad Martin, Tee Sin Lim, Simon Hughes, David Pryor, James W.F. Catto, Paul Kelly, Leily Gholam Rezaei, Scott C. Morgan, Ricardo A. Rendon, Christopher Sweeney, Australian, New Zealand Urogenital Prostate Cancer Trials Group. "Dasl-Hicap: A Randomized, Phase 3, Double-Blind Trial of Darolutamide with Androgen-Deprivation Therapy and Definitive or Salvage Radiation for Localized Very High-Risk Prostate Cancer." *Journal of Clinical Oncology* 41, no. 6_suppl (20/02/2023 2023): TPS396-TPS96. http://dx.doi.org/10.1200/JCO.2023.41.6_suppl.TPS396.
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 - Matthew J. Roberts, George Hruby, Andrew Kneebone, Jarad M. Martin, Scott G. Williams, Mark Frydenberg, Declan G. Murphy, Ben Namdarian, John W. Yaxley, Michael S. Hofman, Ian D. Davis, Louise Emmett. "Treatment De-Intensification for Low-Risk Biochemical Recurrence after Radical Prostatectomy: Rational or Risky?" *BJU Int* 132, no. 2 (22/05/2023 2023): 146-48. <http://dx.doi.org/10.1111/bju.16086>.
 - Chandrima Sengupta, Simon Skouboe, Thomas Ravkilde, Per Rugaard Poulsen, Doan Trang Nguyen, Peter B. Greer, Trevor Moodie, Nicholas Hardcastle, Amy J. Hayden, Sandra Turner, Shankar Siva, Keen-Hun Tai, Jarad Martin, Jeremy T. Booth, Ricky O'Brien, and Paul J. Keall. "The Dosimetric Error Due to Uncorrected Tumor Rotation During Real-Time Adaptive Prostate Stereotactic Body Radiation Therapy." *Medical Physics* 50, no. 1 (10/11/2022 2023): 20-29. <http://dx.doi.org/https://doi.org/10.1002/mp.16094>.
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- #### 5. Lymphoma
- Clinton Smith, Sanjiv Gupta, Yaw Chin, and Stephen Thompson. "Long Term Outcomes of Gastric Malt Lymphoma Treated with Radiotherapy: A Multi-Centre Retrospective Cohort Study." *Hematological Oncology* 41 (09/01/2022 2022). <http://dx.doi.org/10.1002/hon.3078>.

6. Patient Experience

- Erin Forbes, Kerrie Clover, Amanda L Baker, Kristen L McCarter, Sharon Oultram, Mahesh Kumar, Chris Wratten, Minh Thi Tieu, Jofie Nixon and Ben Britton "Biofeedback Enabled Calm (Becalm)-the Feasibility of Biofeedback on Procedural Anxiety During Radiation Therapy: Study Protocol for a Pilot Randomised Controlled Trial." *BMJ Open* 12, no. 12 (07/12/2022): e062467. <http://dx.doi.org/10.1136/bmjopen-2022-062467>.

7. Physics

- Michael Barnes, Dennis Pomare, Marcus Doebrich, Therese Standen, Joshua Wolf, Peter Greer, and John Simpson. "Insensitivity of Machine Log Files to MLC Leaf Backlash and Effect of MLC Backlash on Clinical Dynamic MLC Motion: An Experimental Investigation". *Journal of Applied Clinical Medical Physics* (06/09 2022): 13660. <http://dx.doi.org/10.1002/acm2.13660>.
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- Matthew Field, David Thwaites, Martin Carolan, Geoff P Delaney, Joerg Lehmann, Jonathan Sykes, Shalini Vinod, Lois Holloway, Infrastructure platform for privacy-preserving distributed machine learning development of computer-assisted theragnostics in cancer, *Journal of Biomedical Informatics*, <https://doi.org/10.1016/j.jbi.2022.104181>
- Nesrin Dogan, Ben J. Mijnheer, Kyle Padgett, Adrian Nalichowski, Chuan Wu, Matthew J. Nyflot, Arthur J. Olch, Niko Papanikolaou, Jie Shi, Shannon M. Holmes, Jean Moran, Peter B. Greer. "Use of electronic portal imaging devices for pre-treatment and in vivo dosimetry patient-specific IMRT and VMAT QA: Report of AAPM Task Group 307.". *Medical physics*. <https://doi.org/10.1002/mp.16536>
- Sarah Altowairqi, Suhuai Luo, Peter Greer. "A Review of the Recent Progress on Crowd Anomaly Detection." *International Journal of Advanced Computer Science and Applications*, 14(4), 659-669. doi: <https://10.14569/IJACSA.2023.0140472>
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8. Synthetic CT and MRI Integration

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- Hang Min, Jason Dowling, Michael Jameson, Kirrily Cloak, Joselle Faustino, Mark Sidhom, Jarad Martin, Michael Cardoso, Martin A Ebert, Annette Haworth, Phillip Chla, Jeremiah de Leon, Megan Berry, David Pryor, Peter Greer, Shalini K. Vinod, Lois Holloway. "Clinical target volume delineation quality assurance for MRI-guided prostate radiotherapy using deep learning with uncertainty estimation". *Radiotherapy and oncology : journal of the European Society for Therapeutic Radiology and Oncology*, 109794. <https://doi.org/10.1016/j.radonc.2023.109794>

CONFERENCE PRESENTATIONS

- Jarad Martin**, Mark Sidhom, David Pryor, Joseph Bucci, **Eric Wegener**, **Kenway Yeoh**, **Matthew Richardson**, **Peter Greer**, **Sarah Gallagher**, **Lee Wilton**, Laurel Schmidt, Sarah Keats, Sankar Arumugam, Simon Brown, Alan Glyde "Prostate Virtual HDR Brachytherapy Boost: 5-year Prospective Multicentre Clinical Trial Results" ESTRO 2023, Oral presentation
- Martin Lange, Luc Ollivier, Marion Renouf, Nicolas Magne, Igor Latorzeff, Pascal Pommier, Etienne Martin, Amaury Pommier, Guillaume Béra, Charles Catton, Ke Zhou, Martine Bellanger, **Jarad Martin**, Stephane Supiot "Pattern of relapse following hypofractionated radiotherapy of IR prostate cancer in the PROFIT trial" ESTRO 2023, Oral presentation
- Shankar Siva, Pitchaya Sakyanun, Tao Mai, Wenchang Wong, Adeline Lim, **Jane Ludbrook**, Catherine Bettington, Angela Rezo, David Pryor, Nicholas Hardcastle, Tomas Kron, Braden Higgs, Hien Le, Marketa

- Skala, Suki Gill, Raef Awad, Giuseppe Sasso, Shalini Vinod, Rebecca Montgomery, David Ball, Mathias Bressel. "Long-term outcomes of TROG13.01 SAFRON II: Single vs multi-fraction SABR for oligometastases to lung" ESTRO 2023, Oral presentation
4. Howard Liu, Yoo Young Lee, **Swetha Sridharan**, Wei Wang, Richard Khor, Julie Chu, Andrew Oar, Ee Siang Choong, Hien Le, Mihir Shanker, Alan Wigg, Katherine Stuart, David Pryor "Definitive SBRT in early-stage HCC: an Australian multi-institutional review of outcomes" ESTRO 2023, Oral presentation
 5. Paige Taylor, Catharine Clark, **Joerg Lehmann**, Mitsuhiro Nakamura, Hugo Palmans, Lone Hoffman, Sarah Kelly, Elizabeth Miles, Ditte Moller, Coreen Corning, Stephen Kry, Kamal Akbarov, Markus Stock, Marianne Aznar, Rachel Effenev, Enrico Clementel, Samir Patel, Pavel Kazanstevev, Mauro Carrara, Brendan Healy "Are we so different? An international risk comparison of photon vs. proton clinical trial QA" ESTRO 2023, Oral presentation
 6. Mohammad Hussein, Nick Hardcastle, **Joerg Lehmann**, Catharine Clark "Robustness of spine SBRT to sub tolerance MLC errors – a large scale evaluation" ESTRO 2023, Oral presentation
 7. **Sharon Oultram, Guneet Kaur, Geetha Govindarajulu, Swetha Sridharan**, Bradley Beeksma, **Paul Simpson**, Jodi Waugh, Stephanie Wrightson, and Claire Dempsey "To fill or not to fill: Comparison of bladder doses based on empty and full MRI scans during intracavitary brachytherapy for cervical cancer" Australian Brachytherapy Group (ABG) Annual Scientific Meeting 2023, Oral presentation
 8. **Laura O'Connor** "MRI to CBCT Treatment Verification for Pelvic Malignancies" Society for MR Radiographers & Technologists (SMRT) 2022, Oral presentation
 9. **Laura O'Connor** "Comparison Of Popular sCT Generation Methods, for MRI-only Definitive Pelvic Radiotherapy" Aus MR and RT Conference 2022, Oral presentation
 10. **Laura O'Connor** "Diagnosis vs Characterisation And Localisation; The Differing Goals Of MRI For Radiotherapy" Society for MR Radiographers & Technologists (SMRT) 2022, Oral presentation
 11. Peter B. Greer, **Joerg Lehmann**, Benjamin J. Zwan and Alisha Moore, "A Remote, Sensitive and Cost-Effective Method for International Dosimetric Auditing Including Developing Countries" AAPM meeting 2023, Oral presentation
 12. **Joerg Lehmann**, Mohammad Hussein, Catharine Clark, Peter Greer "SEAFARER Australia – Is our patient specific quality assurance effective?" EPSM 2022, Oral presentation
 13. **Joerg Lehmann** "Impact of camera occlusion on surface guided radiation therapy for SRS treatments", EPSM 2022, oral presentation
 14. Lois Holloway, Rob Finnegan, Vicky Chin, Phil Chlap, Daniel Al Mouiee, Matthew Field, Janet Cui, Amir Anees, Fahim Alam, Nick Hardcastle, Nick's students, Martin Carolan, Michael Bailey, Senthil Gandhidasan, Jonathan Sykes, Verity Ahern, Eric Hau, **Joerg Lehmann, John Simpson, Jane Ludbrook**, Jothy Selvaraj, Angela Rezo, David Thwaites, Shalini Vinod, Geoff Delaney "How consistent are heart contours and associated dosimetry?" EPSM 2022, oral presentation
 15. **Peter Greer**, Therese Standen, Raj David, Narges Miri, K Bobrowski, **Joerg Lehmann**, Benjamin Zwan, Alisha Moore "Remote EPID-Based Dosimetric Auditing using DVH Patient Dose Analysis", EPSM 2022, oral presentation
 16. Hilda Chourak, Anais Barateau, Jean-Claude Nunes, **Peter Greer**, Safaa Tahri, Caroline Lafond, Renaud de Crevoisier, Jason Dowling, and Oscar Acosta. "Local Quality Assessment of Patient Specific Synthetic-Ct Via Voxel-Wise Analysis." International Conference on Digital Image Computing: Techniques and Applications 2022, Conference Abstract
 17. F Kong, Bradley Beeksma, **Peter Greer**, Software development for pre-treatment QA to automate the virtual phantom EPID dose reconstruction method (autoVIPER), EPSM, Adelaide, Australia, Nov 13-16, 2022 Oral Presentation
 18. **John Simpson**, James Welsh, Stephan Chalup, **Peter Greer**, Automatic Contouring of Organs-at-Risk in the Head and Neck on MR Images Using Fully Convolutional Networks, EPSM, Adelaide, Australia, Nov 13-16, 2022 Oral Presentation]
 19. **Peter Greer**, Jason Dowling, Jae Choi, Parneh Raniga, Mark Sidhom, Tony Young, Wilkinson D, **Laura O'Connor, Kate Skehan, Lee Wilton, Perry Hunter, Jarad Martin**, The NINJA MRI-only implementation substudy-preliminary results, Australian MRI-in-RT meeting, Noosa, Australia, Nov 2022 Oral Presentation
 20. **Peter Greer**, Jason Dowling, Jae Choi, Parneh Raniga, Mark Sidhom, Tony Young, Wilkinson D, **Laura O'Connor, Kate Skehan, Lee Wilton, Perry Hunter, Jarad Martin**, The NINJA MRI-only implementation substudy-preliminary results, , TROG Annual Scientific Meeting, Adelaide, Australia, Oral Presentation
 21. **Peter Greer**, et al., Results of the VESPA remote-EPID based audits for TROG clinical trials, TROG Annual Scientific Meeting, Adelaide, Australia, Oral Presentation
 22. B Texier, C Hémon, Lekieffre, E Collot, Safaa Tahri, Hilda Chourak, Jason Dowling, **Peter Greer**, I Bessieres, Anais Barateau, Caroline Lafond, Renaud de Crevoisier, J Castelli, Jean-Claude Nunes, "Multicentric CT synthesis by 3D cycle-GAN for prostate MRI-only radiotherapy", IEEE 20th International Symposium on Biomedical Imaging, Oral Presentation
 23. Hilda Chourak, Jason Dowling, **Peter Greer**, Anais Barateau, Carlone Lafond, Renaud de Crevoisier, Jean-Claude Nunes, Oscar Acosta, MRI-only radiation therapy for prostate cancer: exploration of the impact of synthetic CT uncertainties on dose calculation, IEEE 20th International Symposium on Biomedical Imaging, Oral Presentation
 24. Siyu Liu, L Liu, Jason Dowling, Craig Engstrom, **Peter Greer**, Stuart Crozier, Shekhar Chandra, "Enhancing generative medical image translation with cycle-consistent anti-aliasing", IEEE 20th International Symposium on Biomedical Imaging, Oral Presentation
 25. **Oultram S, Kaur G, Govindarajulu G, Sridharan S and Dempsey C**. Cervix brachytherapy: determining the optimal bladder volume using empty and full bladder MRI scans. ESTRO Annual Conference, Vienna, Austria, May 2023
 26. Carlson CM, Zhu H, **Dempsey C**, Shulman A, Della Bianca C, Keiper T, Koufigar S, Yorke A, Jalal B, Yu C, Dimitriadou D, Wilson L, Nano T and Li B. Large-Scale Remote Training for Medical Physicists to improve Intensity-Modulated Radiation Therapy/ Volumetric Modulated Arc Therapy in Low and Middle-Income Countries. Radiation Oncology Education Collaborative Study Group (ROECSG) Annual Symposium, Chicago, USA, May 2023
 27. **Oultram S, Kaur G, Govindarajulu G, Sridharan S and Dempsey C**. Determination of the optimal bladder filling protocol for cervix brachytherapy treatment (Part 2). Australasian Brachytherapy Group (ABG) annual conference, Sydney, Feb 2023
 28. **Dempsey C**, Shulman A, Carlson C, Ahmed S, Baclely R, Martinez D, Nano T, Sarria GR, Zhu H, Li B. A plan for improvement: Radiation Oncology education for centres in limited resource settings globally. RANZCR Annual Conference, Adelaide SA, November 2022
 29. Carlson CM, Zhu H, **Dempsey C**, Shulman A, Della Bianca C, Keiper T, Koufigar S, Yorke A, Jalal B, Yu C, Dimitriadou D, Wilson L, Nano T and Li B (2023) Large-Scale Remote Training for Medical Physicists to improve Intensity-Modulated Radiation Therapy/Volumetric Modulated Arc Therapy in Low and Middle-Income Countries. Radiation Oncology Education Collaborative Study Group Spring Symposium. Boston Massachusetts May 2023