## Cabrini Research



DISCOVER

ANNUAL REPORT **2021-22** 

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## Contents

### Our mission

### Who we are

We are a Catholic healthcare service inspired by the spirit and vision of the Missionary Sisters of the Sacred Heart of Jesus.

### What we believe

We are a community of care, reaching out with compassion, integrity, courage and respect to all we serve.

#### What we do

We provide excellence in all of our services and work to identify and meet unmet needs.

### Acknowledgment of Country

We acknowledge the Boon Wurrung and Wurundjeri Peoples of the Kulin Nation, who are the traditional custodians of the land and waters where Cabrini Health is situated, and pay our respects to elders – past, present and emerging.

### Our values

Our values are drawn from Mother Cabrini's life and reflect her heart, her spirit, her conviction and her approach.

**Compassion:** Our drive to care is not just a professional duty to provide excellent quality care but is born of a heartfelt compassion for those in need, motivated by God's love for all people.

**Integrity:** We believe in the power of hope to transform people's lives and remain faithful to the bold healing mission and legacy of Mother Cabrini.

**Courage:** We have the strength, determination, vision and conviction to continue the work of Mother Cabrini and the Missionary Sisters of the Sacred Heart of Jesus.

**Respect:** We believe every person is worthy of the utmost respect and the best possible healthcare. We know that our resources are entrusted to us to use for the benefit of others.

Cover photo: Dr Dilys Leung is a Postdoctoral Research Fellow in the Cabrini Monash University Department of Medical Oncology. Her research on breast cancer organoids is a major focus of the department's translational research program, performed at the Monash Biodiscovery Institute (BDI) in collaboration with Professor Helen Abud and Dr Thierry Jardé. 2021-22 Highlights Year in review Cabrini Research Committee Cabrini Scientific Advisory Committee Consumer Advisory Committee Grants and awards 2021 Doug Lording Research Award Celebrating 25 years of discoveries Thank you from Cabrini Foundation Vale Neil Beauglehall The Auric Innovation Grant 2022 Peter Meese Memorial Lecture Clinical trials Cabrini Monash University Department of Cabrini Monash University Department of Cabrini Monash University Department of Monash Cabrini Department of Musculos Biostatistics – Professor Mohammad Asql Department of Urology Department of Cardiology Research Szalmuk Family Psycho-Oncology Resear HER Centre Australia – Health. Education Lisa Thurin Women's Health Centre Department of Health Informatics Intensive Care Research Unit Alan, Ada and Eva Selwyn Emergency Dep Department of Allied Health Research Infrastructure Cabrini Research Governance Publications

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## 2021-22 Highlights



new oncology

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55% of all new approved projects were cancer related

new research projects reviewed and approved

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## Year in review

### MESSAGE FROM THE GROUP DIRECTOR CABRINI RESEARCH

This year has probably been the most challenging in the era of COVID-19. The prolongation of the pandemic has challenged and, in many cases, exceeded the capacity of hospitals worldwide.

Healthcare workers have continued to provide care for patients despite exhaustion, personal risk of infection, fear of transmission to family members, illness or death of friends and colleagues, and the loss of many patients. Sadly, healthcare workers have also faced many additional—often avoidable sources of stress and anxiety. Long shifts, combined with unprecedented population restrictions including personal isolation, have affected many individuals' ability to cope.

Despite this adverse environment, the staff of Cabrini Research have been able to maintain and, in some cases, exceed their anticipated research output. This is truly a great achievement and I congratulate them all. As the old saying goes, "never waste a crisis." The pandemic has shown us what can be achieved when we work together, streamline processes and implement innovative solutions. Our staff have demonstrated incredible flexibility, dedication and resilience, while maintaining empathy for our trial patients and for each other. I congratulate them all on their outstanding efforts.

With the aim of breaking down the research silos, we have created nine research themes – cancer, cardiovascular disease, critical care medicine, health informatics, health services, mental health, musculoskeletal health, precision medicine and translational research. Despite these themes, there is considerable overlap, as translational research and precision medicine are integral components of cancer research. The creation of these themes allows for greater collaboration and sharing of resources. They can be reviewed in more detail on the new Cabrini Research website: https://www.cabrini.com.au/ research/.

With the release of the National Clinical Trials Governance Framework, there has been considerable reorganisation of Cabrini Research governance. The overriding Cabrini Research Committee (CRC), a subcommittee of the Cabrini Board, manages governance and risk and is chaired by Professor David Coplolov AO. The Scientific Advisory Committee (SAC), which sets strategic research directions and facilitates partnerships, is chaired by Professor Stephen Jane. A Consumer Advisory Committee has been created, chaired by myself, with the aim of embedding consumers in all levels of research, from the CRC to involvement in individual protocol development. The Cabrini Research Governance Committee, which reviews all new projects, monitors current projects and reviews all serious adverse events, has expanded to include an inhouse lawyer, a clinician and two consumers. They currently oversee more than 330 projects.

We have been able to develop research programs in several new areas during the last year, namely cardiovascular disease under the leadership of the irrepressible Associate Professor Nathan Better. We have employed a dedicated cardiology research fellow, and already have several studies underway, partnering with both MonashHeart and Alfred Health. Mental health research has commenced at Cabrini's new Lisa Thurin Women's Health Centre. This private, women's only mental health facility is the first of its kind in Australia. Research is currently underway in mood disorders, anxiety, complex trauma and addiction under the leadership of Professor Jayashri Kulkarni AM. Associate Professor Philip Russo, Head of the Cabrini Monash University Department of Nursing Research, has been appointed Director of Research for Monash Nursing and Midwifery. He will continue at Cabrini, pursuing his major research interests in healthcare associated infections and infectious diseases. A/Prof Russo was instrumental during the pandemic in initiating multiple COVID-19 related studies which are ongoing, and he was seconded by the State Government to coordinate the response to the virus. And finally, in an exciting partnership with Alfred Health, Professor Constantine Tam will expand haematology research at Cabrini. Prof Tam is a world-renowned researcher and will bring a large portfolio of clinical trials to Cabrini.

During the same time, there have been some departures. We had mixed emotions when we announced Professor Rachelle Buchbinder AO, Associate Professor Denise O'Connor and Professor Ilana Ackerman made the decision to move their department, the Monash Cabrini Department of Musculoskeletal Health and Clinical Epidemiology, from Cabrini Research to Monash University. While this is an amazing opportunity for them, we are saddened to have their highly esteemed, worldrecognised research team leaving Cabrini. Since establishing the department here in 2000, Prof Buchbinder and the team have gone on to build an outstanding track record, secured millions in competitive grant funding and published world leading research in the fields of musculoskeletal health, epidemiology, low value healthcare and Wiser Healthcare.



One of the biggest achievements has been the strengthening of partnerships in research. I see this as the most important aspect in the continued development of Cabrini Research. We have strengthened ties with the Monash Partners Academic Health Sciences Centre, the Monash Partners Comprehensive Cancer Consortium and the Monash University Central Clinical School. We are incredibly grateful for the support of Professor Christina Mitchell, the Dean, Faculty of Medicine, Nursing and Health Sciences, who has played a major role in facilitating these achievements. We have also developed research partnerships with the Peter MacCallum Cancer Centre and the Garvan Institute of Medical Research, to provide comprehensive genomic profiling of all our cancer patients' tumours, allowing even greater participation in new drug trials.

There are currently more than 330 active research projects being carried out by Cabrini Research. These studies are funded by a mix of government grants, industry sponsorship and the generosity of our donors. During 2021-22, more than 400 publications were published in peer-reviewed journals and more than 200 presentations were delivered at national and international conferences. The Foundation Grant Round for 2021-22 went ahead, with a total \$249,790 awarded to the successful applicants. All of this money has been provided by our generous donors. Projects funded included 'The accuracy of coded hospital acquired complication data in identifying healthcare associated infections', 'Regulation of the immune response in the colorectal cancer tumour microenvironment and its role in patient outcomes', and 'Does automated home monitoring and management of patient-reported symptoms during systemic cancer treatment improve clinical outcomes?' The grants are listed in detail later in this document. Congratulations to all the successful applicants.

The 2021 Annual Cabrini Research Forum was once again a great success. There were 51 abstracts presented, highlighting the wide array of high-level research undertaken at Cabrini and in collaboration with other research organisations.

I would like to take this opportunity to thank our excellent researchers, clinicians and administration team who have worked with such passion and commitment during these trying times. We are also grateful to our Cabrini doctors, nurses and allied health staff for their support of our research programs. We thank Cabrini Health, as a whole, for their support, particularly the Board, Chief Executive Sue Williams, Professor David Copolov AO and the CRC, Professor Stephen Jane and the SAC, and our consumer representatives. I give special mention to Anne Spence, who has had to rearrange the deck chairs at 154 Wattletree Rd, balance the budget, take care of infrastructure and run research governance. I would like to acknowledge every patient who has contributed by participating in a clinical trial or supporting education for our health professionals and I thank our donors for their continuing support of Cabrini Research. And last, but by no means least, I wish to thank the Cabrini Sisters for their ongoing commitment to everything we do.

Despite the effect of the COVID-19 virus, this is a tremendously exciting time for medical research, and your support is invaluable in this journey of hope and discovery to benefit all of our patients. We are grateful to have all of you on our team.

Professor Gary Richardson OAM Group Director, Cabrini Research

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## Cabrini Research Committee

### MESSAGE FROM THE CHAIR

As a university-affiliated hospital, Cabrini places great emphasis on education and research, both of which seamlessly complement and strengthen our primary purpose, to provide the highest quality of care to our patients.

Cabrini Research, the umbrella entity established last year, now focuses exclusively on research. This is the next step in the evolution of the hospital's impressive history of research, which began in earnest in 1996 with the establishment of the Cabrini Clinical Education and Research Foundation, under the stewardship of Associate Professor Doug Lording AM.

A celebration and reflection on the numerous and, most importantly, clinically relevant research achievements of the hospital during the previous 25 years took place at a gala event in December 2021. At the event, Professor Allen Cheng, Professor of Infectious Diseases Epidemiology at Monash University and The Alfred, spoke about COVID-19 with deep insight that came from him being Victoria's Deputy Chief Health Officer during the most difficult phase of the pandemic.

COVID-19 has permeated into every aspect of our lives and has highlighted how research can dramatically change the trajectory of the effect of the virus on our lives in a positive way. As expected, Cabrini researchers contributed substantially to the research drive, including research by Associate Professor Philip Russo and his colleagues aimed at safeguarding the health and wellbeing of health and aged care workers during the pandemic, and the development of concerted prevention-of-spread strategies for COVID-19 patients admitted to our hospital and to others.

The highest standard of research governance is required for research at Cabrini to be feasible, clinically valuable, safe, in alignment with the hospital's mission and strategy, and in compliance with a raft of necessary and valuable regulations. This is one reason why the Cabrini Board, chaired by Sylvia Falzon, unanimously endorsed the proposal by Chief Executive, Sue Williams, to accept all the recommendations made as a result of the detailed review of research and teaching at the hospital by highly experienced health system expert, Michael Wright. One of the most important recommendations was to establish, as a committee of the Board, a Research Committee, so the Board had a "direct line of sight" and enhanced responsibility for research strategy and policies. The Committee was established last year, with much of the "heavy lifting" that was involved in the formative phases of the Research Committee's existence being undertaken by my Committee Chair predecessor, Associate Professor Caroline Brand, (then) newly appointed Group Director Cabrini Research, Professor Gary Richardson OAM and Director of Infrastructure, Anne Spence. On behalf of the hospital, I thank them for their vital contributions in setting up a solid, carefully thought through and sustainable governance structure.

Another important recommendation from the Wright Review was to establish a Scientific Advisory Committee (SAC) as a subcommittee of the Research Committee, to provide in-depth expertise across the research domains represented at the hospital. An outstanding SAC was established last year under the Chairmanship of Professor Steven Jane, who is the Foundation Dean of the Sub Faculty of Translational Medicine and Public Health at Monash University, based at The Alfred. We thank him and his fellow Committee members for their guidance, advice and productivity.

During the last 12 months, the Research Committee considered a raft of important matters, some of which included:

- A strengthening of our partnerships with Monash University, Monash Partners (a large academic health science collaboration between 10 organisations, including notfor-profit and public sector hospitals, research institutes and Monash University) and Cancer Trials Australia, to improve collaborative research endeavours and to share infrastructure.
- A continuation of substantial research activity, especially clinical trial research, in phase one of the Cabrini Cancer Institute, despite the strictures associated with the pandemic.
- The sharing, with Rosebud Day Oncology (a campus of Peninsula Health), of \$1m of our \$6m capital grant from the Commonwealth Government Department of Health and Aged Care for Cabrini's Cancer Institute.



- The rapid development of the cardiology research program, under the leadership of Associate Professor Nathan Better, and an enhancement of the relationship with cardiologists at MonashHeart and Alfred Health. We are grateful to Professor Stephen Nicholls, who helped facilitate the important early stages of setting up the cardiology program, for his ongoing strategic advice through his role on the Cabrini Research Committee.
- Verbal presentations and written reports from research heads, for example, by Professor Paul McMurrick, Head of the Cabrini Monash University Department of Surgery, which included a summary of recent progress in relation to the internationally recognised Cabrini Monash Colorectal Neoplasia Database – a very large, prospectively-maintained and clinician-led database, which improves patient care and outcomes.
- The development of research in the new field (for Cabrini) of women's mental health, as a result of the establishment of Australia's first women's-only mental health hospital, located in the Lisa Thurin Women's Health Centre, under the Directorship of Professor Jayashri Kulkarni AM.
- The creation of a Consumer Research Advisory Committee, which consists of volunteers who have lived experience involving a wide diversity of Cabrini's clinical services. This committee will support the Cabrini Research Committee, the Scientific Advisory Committee, the Cabrini Foundation Grant Panel and Research Governance meetings, and make recommendations to researchers during the process of formulating research protocols.

The reconfiguration and enhancement of Cabrini Research's website, by Dr Emma Baker. The website, which can be found here – https://www.cabrini.com.au/research/ – contains a wealth of information. I commend it to you for further reading.

Although considerable progress has been made in relation to enhanced research activities and new research governance structures, and the research being undertaken at the hospital forms the basis of innovative and improved treatments, we recognise that there is further progress to be made. To become the powerhouse of research and evidence-led clinical practice that we know Cabrini can become will require a determined and sustained effort, clear and bold planning and a substantial increase in financial and human resources.

We are committed to doing all we can, on our watch, to help bring that vision to fruition.

Professor David Copolov AO Chair, Cabrini Research Committee

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## Cabrini Research Committee

### **MEMBERS**



Professor David Copolov AO | Chair

David is the Pro Vice-Chancellor, Major Campuses and Student Engagement at Monash University. He is also Professor of Psychiatry at Monash and at the University of Melbourne and Honorary Professorial Fellow at the Florey Institute for Neuroscience and Mental Health. He was the Executive Director of the Mental Health Research Institute of Victoria between 1985 and 2004. At the Institute. his research focused on the clinical and neurobiological aspects of schizophrenia. In 2020, he was appointed a Director of Cabrini Health. He was a Director of the Board of the Royal Women's Hospital (RWH) from 2014-20. For nine years, until 2013, he was a Director of the Board of the Peter MacCallum Cancer Institute (Peter Mac), the last six as Deputy Chair. He was Chair of the Research Committees at RWH and Peter Mac. From 2008-16. he was a Director of the Australian Nuclear Science and Technology Organisation (ANSTO). He has held several advisory appointments to the Australian Federal and State Governments, including 12 years as a member of the Victorian Ministerial Advisory Committee on Mental Health and eight years as the psychiatric expert on the Australian Drug Evaluation Committee.



Associate Professor Caroline Brand

Caroline brings to the Cabrini Research Committee her experience as a medical specialist and health services researcher. Caroline is a consultant rheumatologist with inpatient and outpatient experience in public and private healthcare sectors. She has degrees in Medicine (Monash University) and Arts (University of Melbourne) and a Master of Public Health degree (Monash University). She is a graduate of the Australian Institute of Company Directors. Caroline has a particular interest in designing, implementing and evaluating new models of care for people with chronic conditions and improving the quality and safety of healthcare. Caroline was Director of the Clinical Epidemiology and Health Services Evaluation Unit (later known as Melbourne Board. EpiCentre) between 2004-10. She has been a Fellow of the Roval Australasian College of Physicians since 1984 and is a member of the Australian Rheumatology Association. Caroline has contributed to a number of committees for both professional organisations as well as state and national health governance bodies. She was president of the Victorian Branch of the ARA between 2006-07. Caroline is a member of the Cabrini Patient Experience and Clinical Governance Committee.



#### Professor Sally Green

Sally is Co-Director of Cochrane Australia and Deputy Head (Research) of the School of Public Health and Preventive Medicine at Monash University. She holds a PhD in Epidemiology and Preventive Medicine from Monash University and has several competitively funded research projects which aim to improve health outcomes by investigating the most effective and efficient pathway of knowledge from research result to sustained change in clinical practice and policy. Sally is also a member of Australia's National Health and Medical Research Council (NHMRC) Synthesis and Translation of Research Evidence (STORE) Advisory Group and is a member of Cochrane's International Governing



#### Associate Professor James Lee

James is an academic endocrine surgeon at The Alfred, Monash Health and Epworth HealthCare in Melbourne. His research focuses on the development of precision medicine in thyroid cancer care, with a current research project on developing molecular biomarkers to improve the diagnosis of thyroid cancer on cytology. James received the Doctor of Philosophy from the University of Sydney for his thesis on the miRNA biomarkers of papillary thyroid cancer. James recently held the Royal Australasian College of Surgeons (RACS) Foundation for Surgery Senior Lecturer Fellowship. His current research is funded by The Aftershock, IMPACT Philanthropy and an Epworth Research Institute Development Grant. Other areas of research include patient reported outcomes in collaboration with ANZ Thyroid Cancer Registry and application of artificial intelligence in endocrine surgery. James is on the RACS Court of Examiners, an executive committee member of the ANZ Endocrine Surgeons, and on the steering committee of the ANZ Thyroid Cancer Registry.

Stephen is the Director of MonashHeart, Director of Victorian Heart Institute and Professor of Cardiology at Monash University. He will be the Director of the Victorian Heart Hospital. He completed his cardiology training at John Hunter Hospital and his PhD at the University of Adelaide, prior to holding a postdoctoral fellowship and faculty appointment at the Cleveland Clinic and the South Australian Health and Medical Research Institute. His research interests focus on the role of metabolic risk factors and imaging in atherosclerosis, with work spanning from early discovery to leadership of large clinical trials. He is Chair of the Australian Atherosclerosis Society Clinical Council, Australia and New Zealand Alliance for Cardiovascular Trials, Asia Pacific Cardiometabolic Consortium, Secretary of the Cardiac Society of Australia and New Zealand and a Fellow of the Australian Academy of Health and Medical Sciences.



# Core Core

#### **Professor Stephen Nicholls**

#### Bob Santamaria

Bob joined the newly constituted Cabrini Research Committee upon its formation, having joined the Board of Cabrini Australia in October 2020. Bob retired as ANZ Group General Counsel in September 2019, after 12 years in that role. Prior to ANZ, Bob was a partner for 20 years at the law firm, Allens. In addition to his Cabrini roles, Bob is on the Boards of Villa Maria Catholic Homes Limited (involved in aged care, disability support and homes for the homeless) and Orygen Foundation Limited (involved in youth mental health).

## Cabrini Research Committee

### **MEMBERS**





#### Sue Williams

Sue has more than 25 years' experience in the healthcare industry at senior management level in both the public and private sectors. She has held various roles including the Director of Nursing at the Royal Melbourne Hospital, Chief Operating Officer of 44 hospitals at Healthscope and Chief Executive Officer at Peninsula Health. Sue originally trained as a nurse, has postgraduate qualifications in business management, a Master of Business Administration from Monash University and has completed an Advanced Management Program at Harvard University and the Australian Institute of Company Directors course. She joined Cabrini in the new role of Chief of Health Operations in October 2017 and accepted the role of Chief Executive at Cabrini in December 2019.

#### Kee Wong

Kee is the founder of e-Centric Innovations – a technology consulting firm that operates in Australia, Malaysia and Singapore, serving large multinational enterprises and governments. Kee actively invests in startups and established businesses across the technology, retail, property, services and food and beverage industries in Australia and overseas. Kee is a current Board member of Carsales.com, an ASX100 listed company. Kee is also a Board member for the Australian Energy Market Operator (AEMO), the Australian Institute of Company Directors (AICD), the Committee for Melbourne and the Board of Managers of Eloque LLC (a global joint venture company between Xerox and the Victorian Government).



Sophia is an endocrinologist and a leading clinician scientist and trialist. She is Head, School of Public Health and Preventive Medicine, Monash University and Professor of Diabetes, Vascular Health and Ageing. Her research focus is on the generation and implementation of evidence for the prevention, screening and management of chronic conditions such as diabetes and its complications of kidney and cardiovascular disease. Sophia directs and supports projects and teaching on healthcare delivery, as well as advises on clinical epidemiological methods and trial design, conduct and reporting. She is a senior staff specialist in endocrinology and diabetes at Alfred Health and Monash Health where she provides inpatient and outpatient services.



#### Dr Fergus Kerr

Fergus joined Cabrini Health in November 2018. Prior to this, he held the position of Chief Medical Officer at Austin Health. He has a background as an emergency physician and toxicologist at Austin Health, where he later held roles as Director of Emergency Medicine and Medical Directorship of the Medical and Emergency Clinical Service Unit before taking up a role as the Executive Director of Medical Services at Peninsula Health. He returned to Austin Health in 2016 as the Chief Medical Officer. A Fellow of the Royal Australasian College of Medical Administrators, he has a strong interest in toxicology. He is also a Fellow of the Australasian College of Emergency Medicine and has previously been an examiner with the College.

Gary joined Cabrini in 2001 in the role of Director of the Cabrini Monash University Department of Medical Oncology. He took over the role of Group Director Cabrini Research in November 2019. Gary is a Fellow of the Royal Australasian College of Physicians and trained at St Vincent's Hospital, the Peter MacCallum Cancer Institute and the National Cancer Institute in the United States. He is a Professor of Medicine at Monash University. Gary initiated and developed clinical research in haematology and oncology at Cabrini and is involved in the design, development and conduct of clinical trials. Gary is past Chairman of Foundation 49, a men's health organisation, and is part of the Federal Government's advisory board that developed the National Male Health Policy and the Victorian Men's Health and Wellbeing Strategy. He was awarded a Medal of the Order of Australia in 2017 for services to medical oncology.



#### Professor Gary Richardson OAM

### MESSAGE FROM THE CHAIR

More than ever before, collaborations on important research questions are critical for successful outcomes.

The ability to coalesce brilliant minds, from disparate areas, on particular problems has seen clinical and scientific advances proceeding at an unprecedented rate. There is no better example of this than the international response to COVID-19, with the time between the discovery and international rollout of multiple vaccines measured in months not years.

Stimulated by this, Cabrini has embarked on a new era for its research agenda through the formalisation of a partnership with the Monash University Sub-Faculty of Translational Medicine and Public Health, based at The Alfred precinct. Links between Cabrini and the Central Clinical School (CCS) (one of the two schools that make up the Sub-Faculty, with the other being the School of Public Health and Preventative Medicine (SPHPM)) are long-standing in the medical education area, where Cabrini has played an integral role in Monash medical student training as a node of the CCS. Student feedback from Cabrini students has been overwhelmingly positive over many years, with leadership from Associate Professor David Brewster and outstanding contributions from Emeritus Professor Adrian Polglase and Dr Robert Stanley, to name two of many dedicated clinical teachers at Cabrini. Extension of this partnership into the research arena was seen as a natural progression, fortified by many clinical appointees that are shared between the two organisations.

Although Monash has had a research presence at Cabrini for a long period through the auspices of Professor Rachelle Buchbinder AO and Professor Paul McMurrick, amongst others, as well as the involvement of Monash in the administrative management of the extensive Cabrini clinical trial portfolio, which has been enhanced through a strengthened relationship over the last year, formalisation of the relationship was lacking. This has now been redressed with the establishment of Cabrini Research as a recognised department within the CCS. Led by the Group Director Cabrini Research, Professor Gary Richardson OAM, strong links between numerous clinical departments at Monash, The Alfred and Cabrini are emerging. As an exemplar, Professor Constantine Tam, one of Australia's leading clinical haematologists, based in the CCS at The Alfred, has recently been appointed to work in concert with Cabrini haematologists to expand clinical trials in a range of blood cancers. Another shared resource has been the involvement of Professor Jayashri Kulkarni AM, Professor of Psychiatry in the CCS, in the establishment of the Lisa Thurin Women's Health Centre at Cabrini. This is Australia's first private, women's only mental health hospital and will provide patient care and education, and foster research.

Many other partnerships are planned, not only in shared human resources, but also for research platforms, such as genomics. For Cabrini, the largest provider of private cancer treatment in Australia, genomics capabilities are essential, providing the critical bridge between diagnosis and precision-based treatment approaches. The CCS, with advanced capabilities in genomics, in equipment, data management and interpretation, and the recently established genetic counselling service, are a logical ally for the advancement of this Cabrini ambition – with Cabrini patients the beneficiaries, gaining access to state-of-the-art, personalised treatment approaches for a wide variety of cancers.

The advantages of an embedded research culture within a health service are numerous. In the clinical trial arena, it provides free access to the latest medicinal and device advances that frequently re-write patient outcomes. It brings evidence-based care to the forefront, minimising valueless, and sometimes detrimental, interventions and prioritising proven clinical approaches. It also enriches the workforce, as many clinicalacademic leaders are excellent researchers, but also at the very pinnacle of their clinical disciplines. With this comes reputational enhancement, where the health service becomes a destination of choice, not only for a quality workforce at all levels, but for patients who gravitate to the leaders in their fields. The Alfred epitomises this philosophy, recently being recognised as Australia's premier academic health service. Oversight of this new research initiative is well structured through the formation of a Cabrini Scientific Advisory Committee (SAC), consisting of the brightest research minds from multiple clinical disciplines that Monash and Cabrini have to offer. Working closely with the Cabrini Research Committee chaired by Professor David Copolov AO, Prof Richardson and Cabrini clinician and academic researchers, the SAC will help chart the future for Cabrini Research ensuring it is responsive to its patients' needs. I foresee that, with strong support from the Cabrini community, the hospital will be the leading research-intensive private hospital in Australia and competitive internationally.

It is a bright future for the gold-standard of evidence-based care at Cabrini.

#### Professor Stephen Jane

Chair, Cabrini Scientific Advisory Committee

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### **MEMBERS**



Professor Stephen M. Jane | Chair

Professor Chris Bain



Dr Emma Baker

Professor Stephen Jane completed his medical degree at Monash University. He entered the physician training program at The Alfred, completing clinical/ laboratory haematology and a PhD under Professor Hatem Salem, Director of the Australian Centre for Blood Diseases. He then spent five years in the United States of America, the first three as a postdoctoral fellow at the National Institute of Health in Bethesda, and the remainder on the faculty at St Jude Children's Research Hospital in Memphis, Tennessee. He returned to Australia in 1995 as a Wellcome Senior Research Fellow to the University of Melbourne at the Bone Marrow Research Laboratories in the Royal Melbourne Hospital. He became Director of the laboratories in 2000, a Principal Research Fellow of the NHMRC in 2005 and a Professor of Medicine at University of Melbourne in 2006. Professor Jane was appointed as the Head of Central Clinical School, Professor of Medicine, Monash University and Director of Research for The Alfred Hospital in 2011. He is also a member of the Clinical Haematology Service. In the six years since his appointment, the School has increased its competitive grant funding four-fold and has recruited over 400 new researchers and 30 laboratory heads. Professor Jane has a range of research interests investigating both developmental and acquired disorders of the blood and skin in mouse models.

Professor Chris Bain is an experienced clinician and health information management and technology (IMT) practitioner with a unique set of qualifications, and a unique exposure to broad aspects of the healthcare system in Australia. He has extensive experience in designing, leading and running operational IMT functions in healthcare organisations. His chief interests are in digital health, the usability of technology in healthcare, data and analytics, software and system evaluation, technology ecosystems and the governance of IT and data. Chris is one of the very few doubly qualified (in medicine and IT) health informaticians in the country and spent the first 27 years of his career in the operational side of the health industry. For the first 12 years of this period he worked as a medical practitioner, then the last 15 years in health IMT. He has held leadership positions in Australasian Institute of Digital Health and is often called upon to participate in jurisdictional committees on topics around Digital Health. In November 2017, Chris commenced at Monash University as the inaugural Professor of Practice in Digital Health. He is based in the Faculty of IT and also has adjunct appointments with the Faculty of Medicine, Nursing and Health Sciences and works with many stakeholders across Faculties and Institutes at Monash, and with its health system partners.

Dr Emma Baker joined Cabrini in May 2015 and is the Director of Medical Research at Cabrini Research. Emma has a laboratory research background in epigenetics and preclinical testing in cancer models and is a previous recipient of National Health and Medical Research Council and Cure Cancer Australia Fellowships. At Cabrini, Emma has leadership oversight of the Clinical Care Research Program, oversees and is responsible for the production of research communications, events and publications, and is a member of the leadership team responsible for the development and delivery of the Cabrini Research strategy.



Dr Maree Brinkman

Dr Maree Brinkman was the primary carer of her husband who had metastatic colorectal cancer for nearly 10 years. She has a Bachelor of Science (Latrobe University) a Master of Nutrition and Dietetics, (Deakin University), and a PhD in Biomedical Sciences (Katholieke Universiteit Leuven, Belgium). She worked as an Accredited Practicing Dietitian in Melbourne until April 2021, and now works in research for the Nutrition Biomed Research Institute. Maree holds honorary research positions at the Department of Complex Genetics and Epidemiology, School of Nutrition and Translational Research in Metabolism Maastricht University (The Netherlands), and at the Cancer Epidemiology Division of Cancer Council Victoria.

Professor Wendy Brown is an Upper GI and Bariatric Surgeon. She is the Programme Director for Surgical Services and Chair of the Monash University Department of Surgery at Alfred Health, the Director of the Oesophago-Gastric and Bariatric Unit at The Alfred Hospital as well as Clinical Director of the ANZ Bariatric Surgery Registry and Clinical Lead of the Victorian State Upper GI Cancer Registry. Her sub-specialist interests are oesophagogastric cancer, gastrooesophageal reflux disease and bariatric surgery. Her research interests focus on the health benefits from weight loss, physiology of upper GI procedures, optimal service delivery models for bariatric surgery and registry science. She collaborates with basic researchers exploring mechanisms of satiety, NASH and oesophageal cancer. She is Chair of the International Federation for Surgery for Obesity and Metabolic Disorders (IFSO) Global Registry, Chair of the Victorian Perioperative Consultative Council Surgical Sub-Committee, Past President of OSSANZ and ANZGOSA, Past Senior Examiner in General Surgery for the RACS and past Chair of the Scientific Committee of IFSO.







Professor Wendy Brown



Professor Andrew Forbes

Professor Andrew Forbes received his PhD in Statistics from Cornell University, USA in 1990, with his thesis involving methodological issues in matched casecontrol studies. Following this, he worked at Ciba-Geigy Pharmaceuticals, USA until December 1991 as a postdoctoral fellow, gaining experience in methodology, design and analyses of clinical trials, and consultation with clinicians. He joined Monash University in January 1992, and heads the Biostatistics Unit, which consists of 10 staff. He has research interests in development of analytical methods for interrupted time series designs, the application of causal modelling principles to practical problems and latent variable methods. He has active roles in biostatistics coursework development and teaching for postgraduate students in biostatistics, in health/clinical research, and undergraduate students in medicine and biomedical science. He is a chief investigator on numerous research projects in the department and with external investigators, and is active in statistical consulting within the Faculty of Medicine. its affiliated institutes and for external bodies.

### **MEMBERS**



Associate Professor Caroline Gurvich

an NHMRC early career fellowship and a

as well as institutional and philanthropic

fundina.

Rebecca Cooper Foundation project grant



Professor Stephen Hall



Professor Anne Holland

Associate Professor Caroline Gurvich is Professor Stephen Hall is the Medical Director for Emeritus Research (an a clinical neuropsychologist at Cabrini's new Women's Mental Health Centre and independent clinical trial centre in the Deputy Director of the HER Centre Australia. She leads the Hormones and Cognition research group where her research focuses on hormonal influences on cognition and their interactions with psychological and lifestyle factors, such as stress and early life trauma. She has over 100 publications that have ultimately contributed to a better understanding of neuropsychology in women's mental medical conditions. Patient care and safety remains his prime focus. health. She is the recipient of several awards, prizes and competitive grant funding, including NHMRC project grants,

Melbourne which he founded in 2000), Professor of Medicine Monash University and a rheumatologist at Cabrini Health. He has published widely on all aspects of rheumatic disease and maintains a strong interest in general medicine. He has led some 250 clinical trials and is fascinated by new advances in medicine and what they may offer those who suffer with various

Professor Anne Holland is Professor of Physiotherapy and Head of Respiratory Research at Monash University and Alfred Health in Melbourne. She is a National Health and Medical Research Council Leadership Fellow. Anne leads a research program that aims to improve the lives of people with chronic lung disease using novel non-drug treatments. Her recent clinical trials have tested novel models of rehabilitation to increase access and uptake, including low cost home-based models and telerehabilitation. Anne's publications underpin recommendations in national and international clinical guidelines for management of chronic lung diseases, delivery of oxygen therapy, and pulmonary rehabilitation.



**Professor David Kaye** 

Professor David Kaye is Director of the Department of Cardiology at The Alfred and a senior member the Advanced Heart Failure Service. He co-leads the Hypertension and Heart Disease Program at the Baker Heart and Diabetes Institute and is the recipient of an NHMRC Level 3 Research Investigator Grant. David's research work has been directed towards better understanding the causes of heart failure and in developing new treatments. Several of his discoveries have been clinically translated, with the establishment of three clinically active early to mid-stage companies supported by 13 granted US patents. David holds numerous competitive national grants in support of his research. David has published more than 420 manuscripts. He has mentored numerous FRACP cardiology trainees and has supervised 13 PhD candidates to completion. David serves on several advisory boards for several national and international pharmaceutical and medical devices companies.

Associate Professor Julia Morphet is an experienced emergency nurse, with more than 15 years of clinical practice. She transitioned to academia in 2010 to deliver the postgraduate emergency nursing program, and completed her PhD in 2015 and a Graduate Diploma in Health Economics in 2018. She has held several senior nursing leadership roles, including five years as Director of Education for Monash University Nursing and Midwifery (2016-21), and is currently the Deputy Head of School. She was appointed as the National President of the College of Emergency Nursing Australasia (CENA) in 2017. Julia works closely with industry, both at health service and government levels, promoting safe quality care for patients and staff, and is a member of several Australian Commission on Safety and Quality in Health Care working groups, the National COVID-19 Clinical Evidence Taskforce Steering Committee, and the Emergency Care Clinical Network, under the auspices of Safer Care Victoria. She has led an extensive program of research examining nursing and health workforce, workforce preparation, and the effect on patient outcomes. She has published more than 80 peer-reviewed publications and been funded with more than \$5 million in research income over her career.



Associate Professor Julia Morphet

Professor Terence J O'Brien

Professor Terence O'Brien is Chair of Medicine (Neurology) and Head, Central Clinical School, Monash University and Program Director, Alfred Brain and Deputy Director of Research, Alfred Health. He is a specialist in neurology and clinical pharmacology, with particular expertise in epilepsy and neurodegenerative diseases, pre-clinical and clinical trials, and in-vivo imaging in animal models and humans. He leads a large translational research team undertaking both basic studies and clinical studies focused on developing improved treatments for people with epilepsy and related brain diseases. He has been involved as a Principle Investigator in more than 100 commercially sponsored and investigator initiated clinical trials of new treatments for epilepsy, dementia, headache, movement disorders and new PET radiotracers. He has published more than 600 peer-reviewed original papers in leading scientific and medical journals which have been cited more than 25,000 times (H-Index 82). He has held many major leadership roles in the Australian and International Epilepsy and Neurology professional societies, including Chair of the Australian Epilepsy Clinical Trials Network (AECTN), VIC/TAS State Branch Chair 2019. Australian Academy of Health and Medical Sciences. and Chair of the Translational Research Committee, American Epilepsy Society. He is currently the President of the Epilepsy Society of Australia (since 2018).

### **MEMBERS**



**Professor Mark Shackleton** 

Professor Mark Shackleton is the Director of Oncology at Alfred Health, a Professor of Oncology at Monash University, a Victorian Cancer Agency Clinical Research Fellow and Chair of Melanoma and Skin Cancer Trials Ltd. After training in medical oncology and at the Ludwig Institute in Melbourne, he undertook PhD studies at the Walter and Eliza Hall Institute of Medical Research and post-doctoral work at the University of Michigan, USA. He has received several major prizes for his research: the 2006 Victorian Premier's Award for Medical Research, a 2010 NHMRC Achievement Award, a 2011 Pfizer Australia Fellowship and a 2016 Victorian Cancer Agency Clinical Research Fellowship. In 2012, he was awarded the Australian Science Minister's Prize for Life Scientist of the Year.



Professor Karen Walker-Bone

Professor Karen Walker-Bone was recently appointed Head of the Centre for Occupational and Environmental Health at Monash University, Melbourne. She is a clinically-qualified Professor of Occupational Rheumatology who has immigrated from the UK where she directed a National Centre for Musculoskeletal Health and Work. She is an MRC Investigator, holds grants from a range of funders and has published more than 220 outputs including 140 peer-reviewed journal articles, reviews, edited one book, 18 book chapters and 40 government reports. The focus of her research is to maintain health in the workplace and promote good work for people with long-term health conditions.

## Consumers offer unique invaluable insight

### Research from around the world shows consumer involvement leads to better health outcomes.

Research can only truly meet the needs of the population and improve health outcomes if it is developed with meaningful and authentic engagement with consumers.

Consumers are people who have lived experience of a health issue. They might receive healthcare or advice, or otherwise use healthcare services. Consumers include patients, their friends, families, carers and members of the general public.

True involvement of consumers means the research is not done 'about them' or 'for them' - it is performed 'with them' or 'by them'. Consumer involvement is increasingly shaping the research landscape, driven by actions from funding bodies, academic journals and policy changes, particularly with the recent implementation of the National Clinical Trials Governance Framework that outlines the need to engage consumers in research at all levels of an organisation and throughout the entire process of research, from design to delivery.

At Cabrini Research, we are seeking to embed consumers in all levels of research, from the highest level of governance on our Cabrini Research Committee, a subcommittee of the Cabrini Board, all the way through to working directly with our researchers to help shape what research is being performed, how it is carried out and how results and outcomes are shared and applied in practice.

The Cabrini Research Consumer Advisory Committee, chaired by Professor Gary Richardson OAM, Group Director Cabrini Research, was established in 2022, welcoming its first six members. Our consumer members are drawn from a broad range of backgrounds, all with lived experience, and all have experienced Cabrini Health from using a wide variety of clinical services.

"In my role as a speech pathologist, working with both paediatric and adult patients, I'm aware of the importance of listening to your patient and understanding their unique story. As a consumer representative, listening to the experiences of other consumers is vital."

Erica

"A consumer advisor role is an opportunity to bring a patient voice to prioritymaking and policy, plus have the ability to collaborate with clinicians on a topic where the patient has traditionally been passive."

Danielle

*"I have a very strong desire to* help in the fight against cancer by providing assistance to research and research projects. Apart from my own experience caring for loved ones with cancer, I have also worked in the allied health setting, where I became very aware of many of the needs and views of other cancer patients and their carers."

### Maree

*"I have experienced several* incidents in my life (and the lives of those around me) that have given me an insight into health research priorities, policy and practice."

### David

"I have great respect for the value of research and enjoy the intellectual challenges involved in the quest for knowledge. My career has provided me with considerable experience in research. I have also had considerable interactions with the medical system both as a patient and the carer of patients."

### John

"I have been an extensive user of Cabrini Health's services for some years, as an inpatient, outpatient, user of x-ray and pathology services, and attendee of the emergency department and ICU. I have plenty of experience that I feel could help shape research."

Norman

## Grants and awards

### 2021 Cabrini Foundation Grant Round

### Alan Jackson Research Grant

Associate Professor Philip Russo: The accuracy of coded hospital acquired complication data in identifying healthcare associated infections *Awarded* \$50,050 Supported by the Jackson Family

### Cabrini Foundation Quality Improvement Grant

Associate Professor Natasha Michael / Dr Merlina Sulistio: Feasibility and acceptability of electronic capturing of patient reported symptoms in an ambulatory cancer setting *Awarded* \$15,000

### Cabrini Foundation Quality Improvement Grant

Danielle Feil: Living well with secondary breast cancer - the clinical outcomes and patient perceptions of a combined exercise and educational support group *Awarded* \$15,000

### Sambor Family Cabrini Foundation Research Grant

**Dr Shehara Mendis / Dr Rebekah Engel:** Personalising cancer medicine part II: Expanding the organoid program to include treatment-exposed metastatic colorectal cancer *Awarded* \$30,000 Supported by the Sambor Family

### Cabrini Foundation Research Grant

**Dr Tali Lang:** 3D breast spheroids as a preclinical model for breast cancer research *Awarded* \$30,000

### Cabrini Foundation Research Grant

**Dr Simon Wilkins:** Regulation of the immune response in the colorectal cancer tumour microenvironment and its role in patient outcomes *Awarded* \$30,000

### Cabrini Foundation Research Grant

**Dr Tomas Rozbroj:** Psychocultural and practical factors related to Australian adults' understandings and utilisation of information about overdiagnosis: a mixed-methods study *Awarded* \$29,740

### Peter Meese Memorial Fund

**Dr Tali Lang / Kirsten Seletto:** Does automated home monitoring and management of patient-reported symptoms during systemic cancer treatment improve clinical outcomes? *Awarded \$50,000* Supported by Dr Darren Lockie

### Auric Innovation Grants

### 2021 Auric Innovation Grant

Josh Farrington: eCaptis Awarded \$200,000 Supported by Lee and Brian Johnstone

### 2022 Auric Innovation Grant

**Professor Gary Richardson OAM:** Development of a novel personalised therapy platform for metastatic breast cancer *Awarded* \$200,000 Supported by Lee and Brian Johnstone

### 2021 Cabrini Research Forum Poster Awards

Supported by I-MED Radiology

### Research Student Scholarship or New to Research Award

**Dr Alan Xue:** 68Ga-PSMA PET as a predictor of gleason pattern 4 and pathologic upgrading in intermediate risk prostate cancer

**Laura Tan:** Review of hospital acquired complications (runner up)

### Higher Degree Research Student Award

**Kelcey Bland:** Adherence rates and tolerability to a supervised virtual exercise intervention for patients with cancer cachexia

**Dr David Hennes:** Pre-clinical evaluation of immune response to stem cell boosted degradable nanostructured surgical constructs for pelvic organ prolapse (runner up)

### Early Career Researcher Award

**Dr Dilys Leung:** Enhanced epithelial-mesenchymal transition associated with platinum-resistant epithelial ovarian cancers

**Dr Shehara Mendis:** Biology and clinical implications of faecal occult blood test screen detected colorectal cancer (equal runner up)

**Dr Suellyn Centauri:** Treatment outcomes for metachronous colorectal cancer metastasis isolated to the liver (equal runner up)



### Experienced Researcher Award

**Dr Rebekah Engel:** Modelling colorectal cancer using patientderived organoid lines to personalise cancer medicine

**Dr Tali Lang:** Patient-derived organoids: a new tool for predicting treatment responses in breast cancer (runner up)

### Experienced Lead Researcher Award

**Dr Simon Wilkins:** Tissue slice assays as an intact colorectal microenvironment for next generation drug development

Associate Professor David Pook: Nivolumab plus cabozantinib (N+C) vs sunitinib for advanced renal cell carcinoma (aRCC): outcomes by baseline disease characteristics in the phase 3 CheckMate 9ER trial (runner up)

### People's Choice Award

**David Chieng:** Prone and supine 12 lead ECG comparisons for cardiac condition detection in patients on prone ventilation with COVID-19

## Grants and awards



### 2021 Medical Student Research Scholarships

Supported by Cabrini Senior Medical Staff Association

**Amanda Nguyen:** Assessing quality and patterns of care provided to women with ovarian, endometrial and/or cervical cancers using the National Gynae-Oncology Registry (NGOR)

**Chelsea Lin:** The Australian New Zealand Spontaneous Coronary Artery Dissection (ANZ-SCAD) Registry-Cabrini

Denise Tiong: Reconciliation of medication records

Jessica McKie: To determine whether menopausal status is a predictor for toxicities that result in a change in or cessation of endocrine treatment in the setting of estrogen receptor positive, early breast cancer

**Jessica Xue**: Assessing the quality of care provided to people diagnosed with lung cancer using the Victorian Lung Cancer Registry (VLCR)

**Lachlan Coman:** Implementation of the national Lymphoma and Related Diseases Registry (LaRDR) at Cabrini Hospital

**Nada Hasan:** Demographic profile of patients who raise complaints

Savannah Vote: Correlation between infections, delirium, Charlson score and falls

Varun Jahagirdar: International clinical practice guidelines development

**YiJie Neo:** Assessing quality and patterns of care provided to women with ovarian, endometrial and/or cervical cancers using the National Gynae-Oncology Registry (NGOR)

**Roxanne Lim:** A retrospective review of 'code grey' emergency response calls at Cabrini Malvern

### 2021 Publication of the Year Award

Supported by I-MED Radiology

**Professor Peter Kistler:** Alcohol abstinence in drinkers with atrial fibrillation, New England Journal of Medicine

### 2021 Best Presentation by a Medical Student Award

Supported by I-MED Radiology

Jessica McKie: The use of neoadjuvant systemic therapy in early breast cancer as a guide to adjuvant treatment choices: a single institution review

### 2021 Doug Lording Research Award

Supported by I-MED Radiology

Professor Stephen Hall

## 2021 Doug Lording Research Award

### Professor Stephen Hall

Medical Director Emeritus Research, Professor of Medicine Monash University, Rheumatologist Cabrini Health

The Doug Lording Research Award is named in honour of the founder of Cabrini Research, Associate Professor Doug Lording AM. It is awarded every year to a Cabrini researcher for outstanding achievements in clinical, applied or basic research.

Awardees are considered on the total impact their career has had on leadership, mentorship and contribution to research discoveries at Cabrini that have made a lasting impact on a research field and guided the development of new research directions.

Cabrini Research was honored to announce Professor Stephen Hall as the recipient of the 2021 Doug Lording Research Award.

Professor Hall is the Medical Director for Emeritus Research, an independent clinical trial centre in



Melbourne which he founded in 2000, Professor of Medicine Monash University, and a rheumatologist at Cabrini Health. Professor Hall studied medicine at Monash University, completing his degree in 1977. He then specialised in rheumatology and undertook further training at the Mayo Clinic in Minnesota. He has published widely on all aspects of rheumatic disease and maintains a strong interest in general medicine. He has led some 250 clinical trials and is fascinated by new advances in medicine and what they may offer those who suffer with various medical conditions. He has been successful in launching multiple investigator initiated studies to try to fill in details of disease and treatment which were not addressed in randomised controlled trials. Patient care and safety remains his prime focus.

# Celebrating 25 years of discoveries

### 2021 was a landmark year...

We were still combatting the devastating impact of COVID-19, but it also brought cause for celebration. Cabrini Research celebrated an incredible 25 years of research discoveries that have saved lives, made headlines and, ultimately, paved the way for research into the future.

First established in 1996, by the inaugural Institute Director Associate Professor Doug Lording AM – an esteemed endocrinologist/andrologist and committed clinician researcher at Cabrini Health, we have evolved greatly during the past 25 years.

What was started by one incredibly committed clinician researcher is now home to multiple research departments, working in clinical disciplines across the full trajectory of translational research.

Despite COVID-19 lockdowns and restrictions throughout the year, we were able to come together to celebrate this momentous milestone with an evening gala event in December 2021. Held at Kooyong Tennis Club, the evening brought together our Cabrini team and researchers, led by Group Director Cabrini Research, Professor Gary Richardson OAM,, together with the people who have made incredible contributions to our success including past directors A/Prof Doug Lording AM and Associate Professor Peter Lowthian, and our esteemed guests, many of whom are our long-term supporters, to whom we are indebted. The evening provided much entertainment, with comedy and singing by the Singing Sommeliers and a deeply insightful and interesting presentation by our keynote speaker Professor Allen Cheng, Professor of Infectious Diseases Epidemiology at Monash University and The Alfred, and former Victorian Deputy Chief Health Officer. Allen was incredibly engaging, speaking about the most difficult phase of the pandemic and the positives that could be taken from it, especially the research efforts.

At Cabrini Research, we are striving to be a leader in research which improves patient outcomes, healthcare practices and healthcare sustainability worldwide. We are embarking on new and ambitious research programs aligned to our clinical services and we maintain our continued pursuit to make ground-breaking discoveries.

Join us as we forge ahead with the next 25 years of exciting discoveries.



L to R: Koby Scarff, Jon Anderson, Emma Baker, Kate Hurford, Luka Keighley, Rochelle Woods, Simer Khaira, Timothy Colgan, Demis Balamatasias, Emily Bove, Kate Chandler.

Above: Keynote speaker Professor Allen Cheng (left) with Brian Johnstone.

Right: Professor Neville Yeomans AM and Margot Yeomans.



Brian and Lee Johnstone



The Honorable Greg Hunt MP, former Minister for Health and Aged Care, delivered a recorded message of congratulations.



L to R: Michele Tonkin, Kate Hurford, Susie Santilli.

Guests celebrating 25 years of Cabrini Research.

## Thank you from Cabrini Foundation

Cabrini is deeply grateful to all our amazing supporters who enable Cabrini to remain at the forefront in medical research. Their generous support has allowed Cabrini's dedicated world-class researchers to make cutting-edge breakthroughs, have laid the foundation for the development of the Cabrini Cancer Institute, and are funding an Endowed Chair position – the highest academic award that Cabrini can bestow on a research department leader.

### **FOUNDATION** Cabrini Research Donors

- Martin Armstrong Bamford Family Foundation George and Freda Castan and Family John and Anna Christophersen The Fox Family Foundation Pty Ltd Highland Foundation Mr Russell Hutchinson Lee and Brian Johnstone, Auric Innovation Fund Johnstone Family Foundation Connie and Craig Kimberley Daryl and Kris D'Souza and Lotte Lerch Mr David and Mrs Barbra MacDonald
- Peter Marriott Pratt Foundation Rodney and Ann Smorgon Family Paul and Rose Spano G and K Stansen The CASS Foundation The Stewardson Charitable Trusts Margaret Walkom Trust Edward Wilson Trust

For information about how you can support life-saving research, contact Megan Potter, Director, Cabrini Foundation on 0455 839 794 or email mpotter@cabrini.com.au

### **BEQUESTS** Cabrini Research Donors

Neil Beauglehall Elaine Louise Benger Nance Nevasa Buchanan Dr Betty Elliott Harold Francis Pamela Golding Hamling Bequest in memory of Fiona Hamling Florence Sheila Johannes Doreen Johnson Heather Jones Douglas Alan Keillor

## How bequests and legacies are transforming research at Cabrini

In the past year, a generous legacy by the late Peter Richard Hicks is funding Dr Dilys Leung's research into breast cancer organoids, an advanced laboratory breast cancer culture model that will drive drug discovery research and identify new treatments for breast cancer.

Paula and Alex Reinders' bequest has enabled researcher Matthew Horrigan and Professor Gary Richardson OAM to establish a multi-modular gynaecologic cancer registry to improve the quality of care provided to women diagnosed with reproductive tract tumours.

Legacies left by the late Gary Conway, Douglas Alan Keillor, Alice Mann, and Veronica Neo Choo Png have all supported Dr Shehara Mendis' research into pancreatic cancer, through the development of the Upper Gastrointestinal and Pancreatic Cancer Database.

The estate of Rose and Herbert Birchall has also allowed Professor Paul McMurrick and Dr Rebekah Engel to investigate new strategies for the detection and treatment of colorectal cancer.

Finally, the extreme generosity of Neil Beauglehall has allowed Cabrini to create an Endowed Chair research department leader position, which will ensure Cabrini will attract the highest calibre of research leaders for generations to come.

Irene Kozica Belinda Lim June Masson Veronica Choo Neo Png Paula and Alexander Reinders Grace Saunders Leslie Alfred Shapland Brian J Sutton FRCNA Hugh Lauder Wallace Mioko Wood

## Vale Neil Beauglehall

### HIS VISIONARY THINKING WILL ENSURE A FUTURE OF GROUNDBREAKING MEDICAL ONCOLOGY RESEARCH AT CABRINI

Neil Beauglehall was a great Aussie battler, who came from humble beginnings, lost his father when he was eight, took care of his mum and drove a truck for a living.

A tough but fair man, Neil wasn't afraid of hard work and, over the span of 50 years, built a transport empire that ultimately allowed him to give back to others.

He was also a visionary man.

After being diagnosed with oesophageal cancer, which had spread to his liver, Neil knew his time was limited and wanted to put in place a legacy to help researchers find a cure to this dreaded disease.

While undergoing treatment, Neil decided to give Cabrini a significant sum from his estate to invest in perpetuity, with interest earned to fund a prestigious Endowed Chair position for medical oncology research. Not bound to a particular researcher, it will ensure Cabrini will always have a future of highly esteemed leaders and brightest minds in medical oncology research.

This, he hoped, would give others the fighting chance he never had.

Cabrini Research is an Australian leader in cancer research and running cancer clinical trials that provide patients early access to the latest advancements in therapeutics. The funding in perpetuity from the Endowed Chair will allow for longterm strategic planning and help pay for young researchers to become the leaders of tomorrow. All of this increases the capacity of Cabrini Research to build on its cancer research program, invest in more clinical trials and recruit more patients who will receive potentially life-saving new therapies.

Held by the Group Director of Cabrini Research and Neil's treating oncologist, Professor Gary Richardson OAM, the Neil Beauglehall Endowed Chair: Director Medical Oncology Research position will enable Cabrini to continue running groundbreaking research for decades to come and help save precious lives.



Prof Richardson said it was an honour to hold the appointment, and an enduring tribute to Neil.

"Neil's incredibly generous gift will allow Cabrini to confidently move forward with innovative cutting-edge research using the most advanced research technology," said Prof Richardson.

"The invested money provides confidence for us to trial new thinking, to test unconventional yet plausible ideas, which could be game changers in medical oncology, and create a new path for others to follow."

Prof Richardson added that with great risk there could be great reward.

"We need to take these giant leaps in cancer research discovery if we are to make significant steps forward in finding new treatments for patients," he said.

### "Neil understood what was needed to take such a leap, he believed in us, and we will be forever grateful for his visionary thinking."

Recalling his conversations with Neil, Prof Richardson said Neil had a keen mind and was always quizzing him about Cabrini's research programs. One day Neil asked Prof Richardson what he needed.

"I talked about funding research, and he offered to fund an Endowed Chair," he said. "It's a tremendous gesture, amazing. He was at the forefront of what we really want to do, and it has certainly set a precedent for what can be achieved in other medical research areas at Cabrini."

Neil's youngest son, Brent, is the first to admit his dad was a hard, but generous man. You had to be to survive in the business for 50 years, he said.

Neil started selling papers on Heidelberg railway station while still at school. With only a year seven education, he left school and progressed to driving logging trucks in Gippsland at the age of 15 years old.

He worked hard trying to take care of his mum, a church organist who was also involved with the Salvation Army. Gradually, Neil started driving interstate across the country when the roads were still just dirt.

"He wasn't given anything in his life," said Brent. "He worked for every cent he's got.

"He's had highs and lows in his life. He's been kicked down, but he'd just get up. That was just how he was."

With a unique way of looking at things in life, Neil loved to share advice with others. He was also the first to offer a helping hand to those in need, buying a car for an animal rescue worker and a truck to help the SES.

He launched his transport business Bohaul Express, a Melbourne to Perth direct service, in 1972 and just never gave up. In the late 80s he built up Oilchem, a company that distributed oils and chemicals to industry, but sold it two years before he got sick.

"There were times when he could have shut the gates," said Brent. "But he kept battling on. That was the sort of person dad was. He never gave up. And he was always wanting to help people when they wanted to have a go."

Today, Brent continues in his father's footsteps helping run Bohaul Express and tells how incredibly proud he is of his father and his legacy to Cabrini.

"We're really proud he was in a position to be able to do this," Brent said.



Professor Gary Richardson OAM and Brent Beauglehall at the Cabrini Cancer Institute.

"If someone survives because of his gift, it makes us even prouder. Had someone done it earlier, maybe he could have been in that position."

Neil passed away at Cabrini in December 2020 at the age of 75.

#### Thank you, Neil Beauglehall.

Your legacy will live on forever in cutting-edge research, better outcomes for patients and more lives saved.

### The Auric Innovation Grant SUPPORTING A WORLD-FIRST PERSONALISED THERAPY PLATFORM FOR METASTATIC BREAST CANCER



Lee and Brian Johnstone are passionate about fostering a culture of innovation throughout Cabrini to improve patient and staff experience. To ensure true innovative change, they have developed the Auric (meaning 'gold') Innovation Grant worth \$200,000, which they have generously awarded for the past four years.

The 2022 Auric Innovation grant was awarded to Professor Gary Richardson OAM, whose collaborative project will produce a world-first personalised therapy platform for metastatic breast cancer.

Chairman of the Cabrini Foundation Board, Sylvia Falzon said the judging panel followed a rigorous independent review process, and ultimately reached a unanimous decision.

"Prof Richardson's application is an exceptional and worthy recipient of the \$200,000 Auric Innovation grant," Ms Falzon said.

"It will put Cabrini on the world stage for novel and cutting-edge advances in precision medicine."

The work will be undertaken as a Cabrini and Monash University collaboration, ensuring the brightest minds are working together.

Cabrini Chief Executive, Sue Williams welcomed the announcement, saying Prof Richardson's application embodied the meaning and intent of the grant - a BIG IDEA, Impact and Outcomes.

"I commend Gary for his pursuit of better outcomes for women who have metastatic breast cancer, which is such a difficult cancer to treat." she said.

"Development of the platform will eventually be a part of personalised medicine available to all women with metastatic breast cancer.

"This will lead to national and international collaborations and help attract the brightest researchers and clinicians to work with Cabrini."

Cabrini Foundation thanks donors Lee and Brian Johnstone for their significant contribution to the Foundation research grant fund.



### Development of a novel personalised therapy platform for metastatic breast cancer

Metastatic cancer is notoriously difficult to treat, us to understand every individual metastatic breast and accounts for the most cancer deaths. Frequently cancer in detail, and test and find the appropriate unresponsive to therapies, the variable locations of treatment for every patient. the tumours make treatment choices challenging. In The Cabrini-Monash Breast Cancer Organoid breast cancer, patients with localised primary tumours Program is only one of two in the world that have have a 99% five-year survival chance, but this drops to successfully grown organoids from breast cancer only 29% for metastatic breast cancer. Understanding cells, but organoids have only been developed from each patient's tumour and developing a personalised primary breast tumours. This innovative study will treatment approach is the only way we will improve be the first of its kind in the world exploring the outcomes. development of metastatic breast cancer organoids. Organoids are "mini-3D tumours" that are created Once mastered, the process could be made available to all women with metastatic breast cancer, and the eventual aim would be to commercialise the process.

in the laboratory, and perfectly mimic the patients tumour they were developed from. Organoid technology is cutting-edge and can provide a unique approach to personalised cancer treatment, allowing

## **Tackling pandemics** from HIV to COVID-19

### 2022 PETER MEESE MEMORIAL LECTURE

Leading infectious diseases expert, Professor Sharon Lewin AO headlined the 2022 Peter Meese Lecture. Sharon has authored more than 360 publications and given more than 100 major international invited talks on HIV cure. As Dr Darren Lockie commented in his opening address "the large number of RSVPs for tonight's event is a tribute to the power and, may I say, cult status of our keynote speaker, Professor Sharon Lewin."

Sharon is the inaugural Director of the Doherty Institute. She is also a Professor of Medicine at The University of Melbourne, a National Health and Medical Research Council (NHMRC) Practitioner Fellow and the President of the International AIDS Society (IAS). As an infectious diseases physician and basic scientist, her laboratory focuses on basic, translational and clinical research aimed at finding a cure for HIV and understanding the interaction between HIV and the hepatitis B virus.

Sharon presented an engaging lecture, paying tribute to Peter Meese and discussing her professional and personal career.

"Peter was a legend in infectious diseases and HIV for me as a young registrar. He was a GP and was dealing with HIV at an extraordinarily difficult time. Peter was known for his optimism, empathy and intelligence, and you definitely needed all three of those when you were looking after HIV patients in the 1980s. He was a researcher, which was very unusual for a GP at that time, when the clinical load would have been extraordinary, and the emotional impact so high, looking after largely young men who were dying of HIV. He was also very active in clinical trials and set up the well-known Middle Park HIV cohort. Importantly, he was known as an advocate, which was incredibly important at that time for people living with HIV. He was an advocate for his patients and for a field that was pretty marginalised – he was known as a leader."

Sharon highlighted the state of the HIV pandemic in 2022, the remaining challenges – including the need for a HIV cure – and the lessons from HIV for the COVID-19 pandemic.

#### Sharon was inspired to work in HIV after working in Kenya in 1989.

*"It really opened my eyes to the fact that HIV was"* everywhere, and it was completely devastating across Africa. There were no treatments and there was such stigma around it. I really decided then

### that this was something of great significance and there was such a high need to better manage HIV. I came back and spent the rest of my career working in HIV."

Following her PhD studies, she had the opportunity to work in New York City (1997-99) with Professor David Ho, the 1995 Time magazine man of the year, who was critical in developing the ground-breaking life-saving anti-retroviral therapies that ultimately turned around the entire face of HIV.

But anti-retroviral therapies are not a cure, the HIV goes into a hiding spot (latency) in people on anti-retrovirals – as soon as you stop that treatment the virus rapidly returns. Sharon has spent her career understanding HIV latency and how to eliminate it.

The HIV pandemic has not gone away. There are 38 million people living with HIV, and there were 1.5 million new infections and 680,000 deaths in 2020. The advances in treatment have been staggering and seen the number of deaths plummet.

Sharon said the change has been heroic.



Peter Meese (second from right) with the organising committee for the 1999 annual meeting of the Australian Society of HIV Medicine (ASHM).



by Sharon here: https://vimeo.com/691626246/10b2e110d4

Dr Peter Meese was a highly regarded Melbourne physician who was diagnosed with bowel cancer in 1999, sadly passing away in 2000. The annual Peter Meese lecture, cancer research grants and scholarships were established by his partner, Dr Darren Lockie, in honour of Peter and to thank Cabrini oncology and palliative care nursing staff for their compassionate care during Peter's illness.

Cabrini wishes to thank Darren for his outstanding ongoing commitment to oncology nursing and philanthropy for more than 20 years. His commitment is supporting research which will subsequently translate into better care for our patients.

## <sup>--</sup>° Clinical trials

### The EFFECT exercise trial is creating opportunities for patients with metastatic breast cancer to improve their health and wellbeing and make strong connections with others

During the last year, Cabrini Research has established a state-of-the-art exercise lab within the Cabrini Cancer Institute that aims to investigate innovative approaches to improve the health and wellbeing of cancer patients.

While we know that exercise can play an important role in managing cancer related health outcomes and improving patient wellbeing, the majority of evidence to date is based on studies involving patients with earlier stage or curative disease.

Cabrini has been involved in recruiting breast cancer patients with advanced disease for one of the largest exercise intervention studies for cancer patients worldwide, the EFFECT trial. As part of this multi-national study that was funded by the European Union and Australia's National Health and Medical Research Council (NHMRC), we have been able to provide 35 patients with metastatic breast cancer (from a total of 350 women and men participating worldwide) with the opportunity to receive a nine month supervised exercise program.

The primary aim of the exercise program is to improve patients' quality of life and cancer-related fatigue, one of the most common and persistent side effects experienced by patients with metastatic breast cancer. Patients involved in the EFFECT study receive a comprehensive assessment of their physical fitness, body composition, cancer and treatment side effects, overall wellbeing and quality of life at regular intervals throughout their nine months on study. Some of the patients in the exercise group have been training together twice a week under the direct supervision of an experienced exercise physiologist at the exercise gym located within the Cabrini Cancer Institute. While working on improving their cardiorespiratory fitness, muscle strength and balance through targeted exercises, it has also provided them with an opportunity to share their stories and support each other.

Alice was diagnosed with stage 4 metastatic breast cancer in December 2021. For her, the EFFECT trial has provided the perfect opportunity to focus on exercising.

"My oncologist told me about the trial and I wanted to join immediately as I know exercise helps with the chemo side effects and feeling better overall."

"I enjoy exercising at Cabrini, as I feel safe there versus going to a gym as an immunocompromised person. I feel stronger from participating in the trial and I also feel I have a better understanding of what I need to be doing to get the most out of exercising."

### Alice says she would actively encourage others to join an oncology exercise trial.

"Just do it! I have really enjoyed my experience. It's a great opportunity and not as scary as it might sound, even if you haven't been exercising previously. Everyone has been lovely and the best part has been making new friends."

Sharon is another participant who would encourage anyone in her situation to become involved in a trial. Diagnosed with stage 4 metastatic breast cancer in December 2018, she had been











looking for an exercise program that was specifically relevant to her diagnosis, and was thrilled to discover this trial and be a part of it.

"I very much enjoy the camaraderie of the other participants in the trial, and the interest and expertise of those who are leading the trial. They continually adapt, guide and assist us to work toward a constructive and beneficial end result. I have lost weight, but importantly I have increased my muscle tone, which we learnt from my second assessment in the trial."

Like Alice, Sharon said she would not hesitate to recommend that others join a trial.

"If you are in my situation, don't hesitate to become involved. It will not only be beneficial to you, but the findings will also be very important to the wellbeing of all those diagnosed with stage 4 metastatic breast cancer in the future."

The outcomes of the EFFECT study will be available next year and hopefully improve the supportive care that patients with metastatic breast cancer and other advanced cancer diagnoses receive.

Dr Eva Zopf, program leader for Exercise Oncology at Cabrini and Principal Investigator on the EFFECT trial said it has been "a great experience" conducting the trial at Cabrini.

"The specialists have been so supportive and engaged in referring patients into the trial, and the participants are so committed. We are looking forward to supporting more cancer patients through our exercise trials at Cabrini."

The EFFECT trial is part of the PREFERABLE project, which received funding from the European Union's Horizon 2020 research and innovation program (Grant agreement No 825677) and the National Health and Medical Research Council of Australia (2018/ GNT1170698).

Top L to R: Alice, Lisa, Dr Eva Zopf and Sharon.

### Patients with a broad range of cancer types are able to access two newly designed immunotherapies through clinical trials at Cabrini

The development of immune checkpoint inhibitors has revolutionised cancer immunotherapies in the past decade.

Up to seven immunotherapies have been approved for use so far for a number of cancer types, including anti-PD-1 antibody therapies (Nivolumab, Pembrolizumab and Cemiplimab-rwlc), anti-programmed death-ligand 1 (PD-L1) antibody therapies (Atezolizumab, Durvalumab, and Avelumab), and a CTLA-4 inhibitor therapy (Ipilimumab).

Despite their success, immunotherapies have provided only a fraction of patients with clinical benefit. There are also limitations and risks with immunotherapies, such as tumour treatment resistance and induction of severe and fatal immunemediated adverse reactions, the latter especially seen with the CTLA-4 inhibitor therapy Ipilimumab.

New research and therapy development is focussed on novel clinically relevant checkpoint antibody immunotherapies with enhanced antitumour efficacy and improved safety profiles. Understanding how immunotherapies may work better in combination approaches, and for specific types of tumours, is also an intense area of research and development.

### New CTLA-4 targeted immunotherapies – ADG116 and ADG126

Cabrini is currently running two early phase dose escalation and expansion clinical trials that offer patients the latest developments in immunotherapies, both as standalone therapies and in combined anti-PD-1 immunotherapy approaches. ADG116 and ADG126 are the newest anti-CTLA-4 antibody immune checkpoint inhibitors developed by Adagene, and early results are showing significant promise.

ADG116 and ADG126 are both CTLA-4 targeting therapies, however their novel designs greatly differentiate them from the currently approved Ipilimumab. Using Adagene's NEObody™ technology, ADG116 is designed with strong antibodydependent cellular cytotoxicity (ADCC) and softened T cell activation combined, leading to increased potency with an improved safety profile. Adagene's SAFEbody™ technology is the platform for ADG126, effectively limiting on-target offtumour toxicities in normal tissues for a superior systemic safety profile and a significantly enhanced therapeutic window to overcome existing issues associated with current anti-CTLA-4 therapies.

### New options for patients with advanced and metastatic solid tumours

For patients who have progressed after all standard therapies, or for whom no further standard therapy exists, Cabrini is able to offer ADG116 and ADG126 in the context of a clinical trial, and for a broad range of cancer types.

### Excellent service delivering exceptional care

Cabrini is the leading recruitment site for both the ADG116 and ADG126 studies, with numbers far exceeding those expected. The ADG116 trial has treated 21 patients, and ADG126 has treated 11 patients so far. At four-times and twotimes the numbers expected, respectively, it is an incredible achievement in screening and on-treatment logistics delivered by the investigators, clinical trial coordinators and hospital departments, who have all worked incredibly hard together to ensure these options could be offered to so many patients.

Dr Anis Hamid, Cabrini's Phase 1 Clinical Trial Program Lead and Investigator on the ADG116 and ADG126 trials, said of the trials at Cabrini, "The expansion of our phase I trial portfolio with a focus on novel immunotherapies, including ADG116 and ADG126, has offered patients treated at Cabrini and elsewhere the opportunity to engage in clinical trials and receive treatment that would otherwise not be available to them."

"First and foremost, our goal is to deliver better care for patients and our early-phase immunotherapy trials are one aspect of multidisciplinary care patients receive at Cabrini. We hope to build on the success of ADG116 and ADG126 by expanding the program with cuttingedge clinical trials that we hope represent new and effective treatment options for patients."



Danielle (left) was diagnosed with ovarian cancer in 2015 and after recurrences of the cancer, the chemotherapy was no longer working. It was then that her oncologist asked if she wanted to go on a clinical trial testing a new therapy.

Danielle said.

Danielle started the trial in August 2021. So far her cancer is stable, and she is doing very well.

"I am really thankful to my oncologist Professor Gary Richardson and the clinical trial coordinators who have been looking after me during this trial. They have all been very supportive and kind and have looked after me very well."



### CLINICAL TRIALS O-

"I was extremely grateful to be accepted for part A of the ADG126 trial. I was really hopeful that it might help me, and if not, then at least the results of this trial may help others after me to have better treatment outcomes in the future."

L to R: Kate Chandler, Dr Anis Hamid and Rochelle Woods.

### A clinical trial at Cabrini offers hope for lung cancer patients with rare Exon 20ins mutations through access to a new, targeted therapy

Lung cancer is the fourth most commonly diagnosed cancer. It is also the most deadly, causing more deaths than any other cancer.

Although there are multiple subtypes, by far the most common is non-small-cell lung cancer (NSCLC), representing 80-85% of all diagnoses. Five-year survival rates for NSCLC depend on the stage at diagnosis, ranging from 57% for localised cancer to only 5% for cancer that has spread to distant locations.

NSCLC tumours frequently harbour activating mutations, found in almost two thirds of patients. The most prevalent of these driver mutations are those in the Epidermal growth factor receptor (EGFR) gene, which is detected in 30% of all NSCLC cases. The most commonly occurring EGFR mutations (90%), comprise of EGFR exon 19 deletion and exon 21 L858R mutations. For patients harbouring these EGFR mutations, targeted EGFR tyrosine kinase inhibitor (TKI) therapies are available and patients respond well.

In a much smaller portion of patients with EGFR-mutated NSCLC (1-10%), EGFR is mutated in Exon 20, referred to as EGFR Exon 20 insertion (Exon 20ins) mutations. Although patients with an Exon 20ins mutation exhibit similar clinical characteristics to those with common EGRF mutations, they are insensitive and resistant to EGFR TKI therapies, and have much poorer outcomes. With no effective targeted therapies, chemotherapy remains the only option for NSCLC patients with Exon 20ins mutations.

### New research brings new options

A new clinical trial being run at Cabrini now offers new hope to NSCLC patients with Exon 20ins mutations. Amivantamab is a fully-human bispecific antibody directed against EGFR and Mesenchymal-epithelial transition factor (MET) receptors. It binds to the outside of the tumour cells, slowing or inhibiting tumour growth and leading to tumour cell death by targeting both cancer-driving and resistance mechanism pathways. Evidence from earlier clinical trials indicates Amivantamab has significant anti-tumour activity and improves the outcomes for patients with NSCLC EGFR Exon 20ins mutations.

> Lung cancer is the most common cause of death from cancer (20% of all cancer deaths)



The phase 3 trial is being conducted worldwide. Two Cabrini patients are currently on the trial, and are doing extremely well.

For Kim, having access to Amivantamab has meant everything. She counts herself incredibly lucky that a therapy targeting her rare type of lung cancer had been developed when she needed it the most.

"The care I have received on trial has been exceptional, from Gary, Simer and the whole trials team. Gary really takes the time to explain everything about my cancer and the trial, making me feel very much involved in my treatment. I am so grateful to be on this trial."

Amivantamab is an exciting new option for the treatment of patients with this rare and complex genetic alteration.

Simer Khaira, Cabrini study coordinator for the trial, said "There are only six patients in Australia currently on this trial, and only 300 patients worldwide will be recruited to the trial. We (Cabrini) are looking after two of these patients. For such a rare tumour mutation, it's amazing that we have two patients who could go on the trial. Most importantly, both are doing extremely well".

Professor Gary Richardson OAM, Cabrini's Principal Investigator for the trial, said "It is the first targeted therapy we have seen for patients with NSCLC EGFR Exon 20ins mutations, and it is showing significant promise. It provides hope for people living with this rare type of lung cancer who, until now, have had no approved treatment options to target their disease."

Amivantamab is currently only accessible to NSCLC patients with EGFR Exon 20ins mutations as a first line treatment option through this clinical trial.

"At Cabrini, we want to ensure all cancer patients have early access to targeted therapies that can mean life-changing outcomes. Having an oncology clinical trials program ensures we can do this," said Prof Richardson.



## EGFR mutation, many will have a



Right top: Kim and husband Gary. Right bottom: Kim and Simer Khaira

### CLINICAL TRIALS O-

### -O MEDICAL ONCOLOGY

## Cabrini Monash University Department of Medical Oncology



PUBLICATIONS



**GRANT FUNDING** 



CLINICAL TRIALS

Dr Despina Handiolias

### **HEAD OF DEPARTMENT**

**Professor Gary Richardson OAM** (Phase I Trials, Gynaecologic

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Dr Henry Januszewicz Dr Sem Liew Associate Professor Lara Lipton Professor Max Schwarz Associate Professor Jeremy Shapiro Dr Gaurav Srivastava Dr Robert Stanley Dr Karen Taylor Dr Mark Voskoboynik Dr Michelle White Associate Professor Max Wolf Registrar Dr Paul Viray Clinical Trial Coordinators Micheleine Uhe, Team Manager Rochelle Woods, Business Manager

Jon Anderson Demis Balamatsias Kate Chandler Dina Cherfi

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Associate Professor Ian Haines

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**Dr Sanjeev Gill** 

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**Dr Eva Zopf,** Exercise Scientist – Program Lead Kelcey Bland, Exercise Research Assistant

### **CANCER DATABASES**

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### **ACKNOWLEDGEMENT OF STAFF WHO HAVE LEFT (2021-22)**

- **Emily Bove**
- loana Logan
- Theresa Ealdama
- Timothy Colgan
- Luka Keighley
- Sandra Sursock

### Generous donor funding is supporting us to break new ground in precision medicine for ovarian cancer

Ovarian cancer is one of the most lethal gynaecological cancers and the eighth most common cancer in women.

Each year in Australia, it is estimated more than 1700 women will be newly diagnosed with ovarian cancer and, sadly, more than 1000 women die from the disease. A lack of early symptoms means the majority of women are diagnosed with advanced disease and have poorer chances of survival. Surgery and platinum-based chemotherapy has been the standard of care for ovarian cancer for decades. Newly-developed PARP inhibitors – used alone or in combination – have been showing promising results, but not every patient responds, leaving them without any treatment options.

One of the main reasons cancer therapies fail for patients, and why a large number of clinical trials fail, is due to cancer heterogeneity – differences between tumours of the same type. Ovarian cancer is extremely heterogeneous – there are many types, subtypes and genetic factors that distinguish every tumour.

Precision medicine aims to treat every patient on an individual basis, and removes the challenge of tumour heterogeneity. It uses information about a person's genes, proteins and environment to prevent, diagnose and treat cancer.

Generous funding from the Johnstone Family Foundation is supporting the Cabrini Monash University Department of Medical Oncology to commence a new research program that will drive precision medicine discoveries in ovarian cancer.

In Australia, the overall 5 year survival rate for women diagnosed with

breast cancer is **91%** 

but for **ovarian cancer**, it is only **46%** 

e Family Foundation versity Department of w research program that ies in ovarian cancer.

ineffective treatments. The development of preclinical models that accurately represent ovarian cancer is of great urgency. Organoids are a revolutionary patient-derived preclinical model. As mini-replicas of tumours but grown in the laboratory, they maintain the genomic landscape and heterogeneity of the tumours they come from and have enormous potential in clinical translational research that will improve human health.

A key element in making precision medicine a reality for more

patients is the development of preclinical models that mimic

numerous vital features of patient tumours. Preclinical models

can drive biological discovery of cancer mechanisms and fast-

selection for patients – saving patients from side effects and

track drug discovery, and have the potential to guide treatment

The Johnstone Family Foundation funding will allow Professor Gary Richardson OAM and Dr Dilys Leung, with their collaborators at Monash University, to develop a novel panel of ovarian cancer organoids that will drive world-class research into ovarian cancer, including new drug discovery, tumour modeling and patient treatment selection.

Dr Dilys Leung (pictured), an early career postdoctoral researcher, is excited about working in ovarian cancer again, having spent the first few years of her career in this field before she joined Cabrini to work with the breast cancer organoid program.



More than **1000** women die every year from ovarian cancer in Australia – **one woman every eight hours**  "Women with ovarian cancer have long endured toxic chemotherapy regimes and nasty side effects. There is huge potential in ovarian organoids to be able to identify the best treatments or novel drug targets specifically catered to the needs of each cancer patient. These are exciting times as we work towards personalised medicine for our patients," said Dr Leung.

Professor Gary Richardson said of the program, "We are incredibly grateful for the support of the Johnstone Family Foundation – without their backing, we wouldn't have been able to establish this novel research program that will change outcomes for women with ovarian cancer."

Development of ovarian cancer organoid models and the knowledge that will be gained from them will push the boundaries in precision medicine and bring us closer to a personalised therapy approach for every ovarian cancer patient.



MEDICAL ONCOLOGY O-



It is estimated that **1720** Australian women will be diagnosed with ovarian cancer each year

### Oncology clinical trials offer patients access to cutting-edge treatments and leading experts in cancer care

Cabrini is dedicated to providing oncology clinical trial options to as many people as possible.

While some may still think that a clinical trial provides less than optimal care than what they would normally receive, or it puts them at risk of missing out on the best option for life saving care, it is quite the opposite. Participating in an oncology trial means you will receive equal, if not more valuable, care. There are no placebos in oncology trials, you will always receive treatment, either the new trial drug, or the currently approved therapy for a patient's cancer type.

The new advances in oncology therapeutics means treatments are being designed to be more targeted to cancer cells, and cause less off-target damage (less damage to normal cells). They are being developed to have greater effects on cancer cells at lower doses, to harness a patient's own immune system to fight cancer cells, to be more targeted to specific tumour cell types, and cause less side effects providing a better quality of life for patients. All of these advanced qualities are rigorously examined in clinical trials.

Being a part of a clinical trial is usually the only way to gain early access to newly advanced therapeutics that are not yet available to the general public. This becomes absolutely critical when all other options for a patient have been exhausted. The latest advances in therapies are often not available as part of normal care for many years. Early access provided through clinical trials can be life-saving in many cases, and allows patients to access new drugs when they need it the most in their journey. Being a part of a clinical trial also allows patients to play an active role in their health and treatment. An oncologist will discuss all the benefits and risks of being involved.

Being part of a clinical trial at Cabrini also means being looked after by leading experts in cancer care. An integral part of this team of experts is the clinical trial study coordinator team. Working side-by-side with the lead oncologists, they are a source of expert knowledge on the trial and are responsible for running the trial according to the study protocol. They also play an important role in the patients experience on clinical trial, being a constant support and point of contact for patients during their trial journey.

Micheleine Uhe joined the clinical trial study coordinator team in March 2022 as the new Team Manager. Micheleine comes to us with a wealth of experience in leading clinical trial teams, having led the highly active haematology trials unit at Monash Health through significant growth over five years, along with a further five years as a senior clinical trial study coordinator. She understands what it takes to run a successful trials unit and what is needed to be able to offer more trials to patients.

Micheleine truly believes that patient knowledge is powerful, and says that more patients would probably ask about joining trials if they understood the benefits.

"Patient knowledge and having the courage to start a conversation with their doctor or oncologist about whether a clinical trial is an option for them is going to be a very important part of growth in clinical trials. There are so many benefits to being on clinical trial, and we want to ensure every patient is aware of their options." Micheleine says.

"In oncology research we are a busy, thriving clinical trials unit, offering a broad range of studies for our patients. We want to continue to grow and be able to offer more trials to more patients. We are constantly striving to improve our service in order to maintain our high standards of patient care."

Rochelle Woods has been with the clinical trial study coordinator team since 2019 and took on the role of Business Manager in November 2021. This is an integral role that ensures the financial viability of Cabrini's connections with pharmaceutical companies who provide access to the latest therapeutics. Her role is also paramount in ensuring our patients are provided with financial support to enter a trial, in most cases eliminating out-of-pocket costs and providing support for travel costs. With extensive experience in leading clinical trials as a senior study coordinator for the past four years, Rochelle also coordinates higher profile clinical trials that require a greater level of study coordinator oversight for patient safety.

Rochelle says people's cancer experiences, their personal stories and journeys really inspire her to give everything she can to her role.

"I have an incredibly deep respect for our patients, they go through so much in their cancer journey, and yet stay so strong. It is really inspiring, and it drives us to want to provide the best possible treatment options for them in a safe, caring and compassionate environment," says Rochelle.

Rochelle feels privileged that her role also allows her to work with another key stakeholder in clinical trials, the pharmaceutical companies. "Relationship management is everything. We aim to establish strong connections with pharma companies, their expertise in drug development and willingness to work with us is absolutely critical. Without them, we wouldn't be able to run the clinical trials that gives our patients access to the latest cutting-edge therapeutics.

"Clinical trials are most successful when there is engagement, collaboration and understanding between everyone involved. From the patients, the trials team, the clinicians, hospital services, research services and pharma companies, everyone plays a key role. By working together we can be extremely successful and offer more patients more options."

### More trials to offer more patients more options

The oncology clinical trials unit has been incredibly busy over the past year. Thirty-one new trials have opened to patient recruitment in the past 12 months, offering patients a range of new targeted therapies and immunotherapy options. The phase I program, representing trials in the earliest stages of testing new therapeutics, many for the first time in humans, has significantly expanded and now represents about 45 per cent of the trials portfolio. While only in early stages of testing, phase



I trials are incredibly safe, being conducted under the highest level of scrutiny and involving a much greater level of clinical review to ensure the safety of all patients. As early stage trials examining newly designed therapeutics, all patients receive the new therapy, and the trials are often open to a large range of tumour types, providing opportunities for a greater number of patients.

The goal is to continue to expand the trials portfolio to ensure Cabrini can offer early access to new cutting-edge therapeutics for more patients. Being able to give patients more choices in their cancer treatment, especially for those who have exhausted all options, or those who have rare tumours with limited options available, is our priority. The Cabrini clinical trial study coordinator team is well structured to accommodate this future growth. Mentorship and training, specialised support roles and streamlined methods are key elements that will ensure they continue to be successful in the incredibly important role they play in clinical trials at Cabrini.

We want to be a leading provider in cancer care. Being able to offer a clinical trial to every patient is key to us achieving this goal.

Micheleine Uhe (left) and Rochelle Woods.

## Clinical trial breaks new ground in the management of stage II colorectal cancer

Colorectal cancer is the third most common type of newly diagnosed cancer in Australia. More than 15,000 Australians are told they have colorectal cancer every year. It is also the second most deadly, claiming more than 5000 lives every year.

The current standard of care for non-metastatic colorectal cancer is surgery, with histopathological staging (stage I, II, III, IV) informing whether adjuvant chemotherapy should also be given. For patients with stage III colorectal cancer, adjuvant chemotherapy is routinely used, as cure rates are only 50-60%, and chemotherapy increases survival by 15-20%. However, in stage II cancer, the cure rate is much higher (80%) and adjuvant chemotherapy improves outcomes by only a very small amount. Even when restricted to stage II patients with adverse histological features, the benefit of treatment is still very small – for every 100 stage II patients receiving chemotherapy, only three or four recurrences are prevented, yet all are being exposed to the inconveniences and side effects. We need a better way to identify, in advance, the unlucky 20% of stage Il patients destined to relapse, and then we could restrict chemotherapy treatment to this sub-group.

The landmark circulating tumour DNA analysis informing adjuvant chemotherapy in stage II colon cancer (DYNAMIC) clinical trial has helped address this clinical dilemma.

Circulating tumour DNA (ctDNA) are very small pieces of cancer DNA that are circulating free in the bloodstream, that have been shedded by cancer persisting somewhere in the body. They should not be present in the blood of patients without cancer. Patients with colorectal cancer who have ctDNA found in their blood following surgery have previously been shown, by a landmark Australian study led by Jeanne Tie, to have a very high risk of cancer recurrence.

DYNAMIC is the follow-on study from this research, and is the first study to use ctDNA to direct adjuvant therapy in colorectal cancer, demonstrating that a ctDNA-guided approach can reduce the use of adjuvant chemotherapy without compromising the risk of cancer recurrence in stage II colorectal cancer patients.

The trial randomly assigned stage II colorectal cancer patients to have their treatment decisions guided by either ctDNA results or standard clinicopathological features. For the ctDNA guided management group, a ctDNA-positive result at four or



seven weeks after surgery prompted adjuvant chemotherapy treatment. Patients who were ctDNA-negative were not treated. This study aimed to reduce the amount of chemotherapy administered to stage II patients, without compromising outcomes.

This is exactly what was found – chemotherapy use was halved, without compromising outcomes.

Even though ctDNA positive patients are known to have a very high risk of cancer recurrence, in this study, when these patients received chemotherapy, outcomes were similar to the good outcomes seen in the standard arm patients (where doctors did not receive ctDNA results and offered chemotherapy to all patients with adverse histological features). In addition, patients who were ctDNA-negative had a very low risk of recurrence (93%, two-year recurrence free rate) even without the use of adjuvant chemotherapy.

Principal Investigator and co-author of the New England of Journal Medicine paper, Associate Professor Jeremy Shapiro led the trial at Cabrini.

"It's great to see Australian researchers leading the way in this landmark study to allow better selection of chemotherapy, limiting treatment to those patient's who really need it," said A/Prof Shapiro (of DYNAMIC).

"The challenge now, is how to bring this important advance to the clinic. This study used a gold standard ctDNA test, which is costly, and with results that take several weeks to finalise. There are simpler and cheaper tests, with faster turnaround times, that are in advanced testing, but will they be as reliable? Only time – and more clinical trials – will tell."

Right L to R: A/Prof Jeremy Shapiro, Demis Balamatsias, Kate Hurford.

Tie J, Cohen JD, Lahouel K, Lo SN, Wang Y, Kosmider S, Wong R, Shapiro J, Lee M, Harris S, Khattak A, Burge M, Harris M, Lynam J, Nott L, Day F, Hayes T, McLachlan SA, Lee B, Ptak J, Silliman N, Dobbyn L, Popoli M, Hruban R, Lennon AM, Papadopoulos N, Kinzler KW, Vogelstein B, Tomasetti C, Gibbs P; DYNAMIC Investigators. (2022) Circulating tumor DNA analysis guiding adjuvant therapy in Stage II colon cancer. N Engl J Med 386(24):2261-2272. doi: 10.1056/NEJMoa2200075.



### MEDICAL ONCOLOGY O-

## Cabrini Monash University Department of Nursing Research







**PRESENTATIONS** 

**HEAD OF DEPARTMENT Associate Professor Philip Russo** 

**RESEARCH FELLOW** 

Dr Lucille Kerr

**STUDENTS** 

Ali Tehrani, PhD, Monash University Pheona van Huizen, PhD, Monash University

### **ACKNOWLEDGEMENT OF STAFF WHO** HAVE LEFT (2021-22)

**Elizabeth Todio** 







### Cabrini study identifies cancer patients were in an especially vulnerable position during the pandemic – what we have learned about providing cancer care during crises

COVID-19 has had an emotional impact on all of us, and there will be long-term psychological costs and mental health implications.



Many people deferred doctor and hospital visits - for fear of exposure to COVID-19, especially as we waited for vaccines to be developed. For many cancer patients this was not an option. They had to attend hospitals for treatment; it wasn't deferrable and couldn't be delivered through telehealth.

The Cabrini Monash University Department of Nursing Research led by Associate Professor Phil Russo (pictured), set out to understand the experiences of people with cancer and their caregivers during the pandemic, in order to gain important knowledge about how future healthcare should be provided in crises. Their study, COVID-19 and Cancer, published in May this year in Cancer Nursing, interviewed 16 cancer healthcare professionals and 19 cancer patients or their carers about their experiences during this time.

The team identified five interrelated themes from the interviews: uncertainty and vulnerability, constraints and restrictions, isolation and disconnection, burdens and stressors, and adaptability and resilience.

The results suggested that for people with cancer and their caregivers, cancer diagnosis concerns outweigh those associated with fear and risks of COVID-19.

#### Social isolation was the most significant challenge.

Speaking directly with the people affected highlighted that healthcare services can assist those who are feeling more vulnerable during crises, especially through greater access to psychosocial and spiritual services, and by providing greater supportive care.

This research was made possible by generosity of the donors who support the Alan Jackson Nursing Research Grant.

## Best support for cancer patients and their loved ones as they approach end-of-life

Nearing the end of life takes an emotional toll on a cancer patient and their loved ones.

Cancer patients face many psychosocial stressors, including dignity loss, existential distress, demoralisation and perceptions of being a burden. These sit in the background of a wide range of psychiatric concerns, from depression and anxiety to posttraumatic stress. Caregivers also face a significant level of psychological distress and anxiety and are at risk of prolonged grief. Cancer patients face many psychosocial stressors, including interventions. What type of research is needed? What types of psychosocial interventions are available? And what are the knowledge gaps? Medical students Nicolle Chew and Ee Lynn Ting, supervised by Dr Lucy Kerr and Associate Professor Philip Russo, set out to answer these questions by conducting an extensive review

People are considered to be approaching the end of life when they are likely to die within the next 12 months. An estimated 49,000 Australians die from cancer every year.

Psychosocial interventions are important as they address emotional, spiritual and practical needs. This creates value, meaning and purpose, helping patients retain a sense of identity while acknowledging the pragmatic needs of finances, housing, and aids to daily living. Implementation of psychosocial interventions to manage psychosocial suffering should be part of best care for every patient facing end-of-life.



Kerr L, Ilangakoon C, Russo PL. (2022) "A different normal": Living with cancer during the COVID-19 pandemic in Australia. Cancer Nursing. doi: 10.1097/NCC.0000000000001132

The field is rapidly growing and there is much evidence to support its benefits, but we need more research to fully understand how we should best deliver psychosocial interventions.

Medical students Nicolle Chew and Ee Lynn Ting, supervised by Dr Lucy Kerr and Associate Professor Philip Russo, set out to answer these questions by conducting an extensive review of the current literature. As part of a project with the Cabrini Monash Department of Nursing Research and Cabrini Intensive Care Research Unit, they found there was a broad variety of interventions, but there was a lack of robust and reliable outcome measures, making it difficult to compare different endof-life psychosocial interventions. Several gaps in the literature were also apparent, such as the need for increased research in middle to low-income populations, interventions addressing social and religious aspects of care, and the impact of COVID-19 on end-of-life interventions.

A/Prof Russo, Head of the Cabrini Monash University Department of Nursing Research commented, "this scoping review has highlighted the gaps in our understanding. Now we can set out to fill those gaps with rigorously designed research, so that the best evidence is driving our care for cancer patients and their loved ones."

> Chew NM, Ting EL, Kerr L, Brewster DJ, Russo PL. (2022) Psychosocial interventions at the end-of-life: A scoping review. Cancer Nursing. doi: 10.1097/NCC.000000000001136.

## Cabrini Monash University Department of Surgery





**ŞZU/K** GRANT FUNDING

# **£**



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John Paul Plazzer

### CLINICAL COLORECTAL FELLOWS

Dr Suellyn Centauri (2021) Dr Lauren Cohen (2022)



### STUDENTS

Mr Stephen Bell, PhD, Monash University Harrison Boka, Honours, Monash University Sara Hlavca, PhD, Monash University Dr Caroline Lum, PhD, Monash University

### ACKNOWLEDGEMENT OF STAFF WHO HAVE LEFT (2021-22)

Dr Stefanie Elbracht-Leong Karen Oliva



### A robust scientific tool to identify new treatments and drug targets offers real potential to change how we treat colorectal cancer patients in the future

Colorectal cancer is the third most commonly diagnosed and second leading cause of cancer death worldwide – there is a significant need to improve detection and treatment strategies for patients.

A partnership between the Cabrini Monash University Department of Surgery – led by Professor Paul McMurrick – and the Epithelial Regeneration Lab at the Monash BDI – led by Professor Helen Abud – is making significant steps forward by utilising organoid technology for a personalised approach for the treatment of colorectal cancer patients as well as a pathway to new treatment discovery.

Traditionally, we have relied on a standard approach for prescribing chemotherapeutic drugs to cancer patients, relying on more common factors such as which organ the tumour arose from, its histological features and metastatic tumour staging. Unfortunately, we know patients respond differently, and frequently fail treatments, even if they have many of these features in common.

Our biggest challenge is how to understand every patient's tumour on an individual level, so that we can prescribe a therapeutic regime that is personalised to them - to gain the best possible outcomes and the fewest side effects.

The Cabrini Monash team are utilising organoid technology for colorectal cancer patients that promises to change how we treat patients and find new treatment options. Their recent publication outlines the development of a colorectal organoid platform derived from 50 patient tumours, plus normal adjacent tissue and, in some cases, matched metastatic tumours from the same patients.

Organoids are an innovative culture model system developed directly from small pieces of patient cancers or normal tissues. They provide a robust, near-physiological model that retains key genetic and phenotypic features of the patient tissue from which it is derived. Increasing evidence suggests that organoids can mimic the treatment responses of the patient in the clinic

and therefore may be useful in predicting treatment response. Organoids are powerful models because they overcome many limitations of earlier cell culture systems or animal systems that are expensive, lack cell type diversity, come with ethical issues and often fail to mimic human tumour characteristics. They represent one of the most significant technological advances in our quest to deliver personalised therapy to every patient.

The latest research, led by Dr Rebekah Engel from the Cabrini Monash team, show the ability to produce colorectal cancer organoids that retain key histopathological, molecular and phenotypic characteristics from original tumour specimens.

Dr Engel says the organoid platform provides a robust scientific tool that will be used to identify new treatments and drug targets, and offers real potential to change how we treat patients in the future.

"Organoids have incredible potential to fulfil our aim of offering personalised medicine to every cancer patient. They truly have the potential to be able to guide treatment choice for patients, not just for standard of care therapies, but in identifying novel treatment strategies for patients who are resistant to chemotherapy, or have failed all standard therapy options and have no treatment options available," said Dr Engel.

"Recent research has shown an organoid can be developed from a patient, drug tested and best therapy approach identified, all before a patient needs to commence treatment. It's early days vet. but we are excited about a not-so-distant future where this could be done for every patient. We are working hard to make sure our bench research translates into the clinic."





Engel RM, Jardé T, Oliva K, Kerr G, Chan WH, Hlavca S, Nickless D, Archer SK, Yap R, Ranchod P, Bell S, Niap A, Koulis C, Chong A, Wilkins S, Dale TC, Hollins AJ, McMurrick PJ, Abud HE. Modelling colorectal cancer: A bio-resource of 50 patient-derived organoid lines. J Gastroenterol Hepatol. 2022 May;37(5):898-907. doi: 10.1111/jgh.15818.

### Testing the whole tumour – tissue slice assays are an innovative new technology being used to test colorectal cancer drug responses and predict patient responses

In 2018, a new collaboration was formed between Dr Anne Fletcher (Stromal Laboratory, Biomedicine Discovery Institute, Monash University), and Professor Paul McMurrick and Dr Simon Wilkins from the Cabrini Monash University Department of Surgery. The collaboration aims to develop an animal-free platform for testing new cancer drugs in colorectal cancer.

We found that current animal and in vitro human models, while important, didn't fully capture the complexity of the human tumour and, because of this, results that appeared to work in these models often didn't translate to patient responses.

While mouse tumours develop in a few weeks, human tumours often take years to develop and, unlike experiments performed in vitro, tumours contain not just the cancerous cells, but also many immune cells, structural cells, scarring proteins and blood vessels. All of these things impact whether or not a new drug will have an effect in patients. The structural cells and scar tissue are particularly important and they are not currently reflected in any commonly used testing model. The newest research shows that these tissues often impair the response to chemotherapy and new immunotherapies, yet, they are not present in our testing platforms.

We decided that if we wanted to know how a tumour responded to a drug, we needed to test the whole tumour, not just the cancer cells.

We have developed an innovative new assay that uses tissue slices from colorectal cancer tumours to accomplish this. Our new testing platform involves a strong partnership between surgeons at Cabrini and scientists at Monash Biomedicine Discovery Institute. If a patient agrees to donate parts of the tumour that would otherwise be thrown out after surgery, our scientists are notified and go and collect it immediately, whether the surgery is at 9am Monday or on a Saturday night. The specimen is chilled, and we use specialised techniques to cut slices of the tumour and culture it in a way that keeps the cells inside alive for up to four days. We then test the response of the whole tumour to drugs, not just the cancer cells but the whole tumour, working together as it works in the body.

So far, we have identified a new lead target that appears to make immunotherapy work better and for more patients. We hope to test this result in a clinical trial within two years.

For the next stage of our research, we are looking for funding to explore whether or not a tumour's response to chemotherapy agents in our testing platform can predict a patient's response. This could be game-changing. If successful, we hope it will reduce the need for lengthy chemotherapy trials, where patients wait weeks to see if their tumour responds. Instead, we hope to be able to apply the drugs directly to tumour slices and have an indication of response or resistance within days. With support, we should be able to answer this important question within two years.

This work has been supported by two Cabrini Foundation grants and an anonymous donation to pay for vital equipment for the project.



### A Victorian-first program, aimed at improving the outcomes for colorectal cancer patients through Patient-Reported Outcome Measures (PROMs)

Colorectal cancer patients often experience high symptom, functional and emotional burdens. Furthermore, these outcomes can persist even after eradication of the tumour.

It is critical that patients with colorectal cancer receive the best possible symptomatic, functional and psychological support throughout their treatment and into survivorship. Currently, patients undergoing colorectal cancer treatment are not specifically asked about their symptom and functional outcomes, wellbeing and their health-related quality of life. As a result, there is a need to provide survivorship care that is tailored to individual circumstances to improve patient and health system outcomes.

The Cabrini Monash University Department of Surgery, led by Professor Paul McMurrick, recently launched a Patient-Reported Outcome Measures (PROMs) program for colorectal cancer patients. PROMs are guestionnaires that help patients to report on outcomes relating to their health. They are completed without interpretation by a clinician, allowing patients to openly voice their health-related concerns. The new program allows for the electronic capture of PROMs through a cloud-based platform that is aimed at understanding both the health-related impact of colorectal cancer treatment on quality of life and symptom and functional outcomes, as well as supporting clinical teams to deliver more personalised, effective care.

Project Coordinator, Dr Christine Georges (pictured) is leading the rollout of this important program, using the colorectal cancer standard set outlined by the International Consortium of Health Outcomes Measurement (ICHOM), that incorporates the health domains that matter most to patients.

"This Victorian-first program will allow colorectal cancer patients to report their health-related outcomes on their own mobile devices or computers. Allowing patients to report this information translates into improved symptom monitoring and enhanced patient-clinician communication, allowing for more well-informed clinical decisions to be made," said Dr Georges.

"By streamlining the collection and analysis of these patient-centric outcomes, this program aims to reduce the administrative burden associated with managing PROMs data, improve patient care Individual and population PROMs data is fed back to a centralised by enhancing patient-clinician communication, portal, which clinical teams can access in real-time to monitor improve clinical decision making and symptom the progress of patients and understand their unique health monitoring and, ultimately, improve survival for profile, including health-related quality of life and symptom and functional outcomes. colorectal cancer patients," said Dr Georges.

### SURGERY O-



The team wish to acknowledge funding from Collie Foundation, Margaret Walkom Trust and Let's Beat Bowel Cancer, a not-forprofit Cabrini initiative.

## Monash Cabrini Department of Musculoskeletal Health and Clinical Epidemiology



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### A new study offers a wealth of knowledge to help tackle the global problem of overprescribing of opioids for people with chronic non-cancer pain

A high-quality study from the Monash Cabrini Department of Musculoskeletal Health and Clinical Epidemiology has provided valuable insights into both patient and healthcare professional barriers and enablers to deprescribing opioids.

#### These findings will aid in the development of tailored, evidencebased deprescribing strategies for reducing overuse of opioids for chronic non-cancer pain.

Chronic non-cancer pain is pain that persists beyond three months unrelated to malignancy. It is highly prevalent worldwide. Despite evidence indicating limited, if any, benefit and substantial risk of harm of opioid analgesics in the management of chronic non-cancer pain, opioid use is extremely common.

High-risk prescribing is a major problem. In Australia, almost three million adults use opioids for chronic non-cancer pain each year. Dispensing increased 15-fold between 1992 and 2012. To take a significant step forward in tackling this global problem, we need research about why this occurs to inform safe and effective interventions for deprescribing opioids for chronic non-cancer pain.

We now have new evidence from a study led by Dr Amanda Cross and Associate Professor Denise O'Connor (pictured) from the Monash Cabrini Department of Musculoskeletal Health and Clinical Epidemiology. Their study involved an extensive analysis of the existing literature on patient and healthcare professional reported barriers and enablers to monitoring and deprescribing opioids for chronic non-cancer pain.

They identified five key barriers:

- that there are limited alternatives to opioids
- management of pain is considered the top priority
- patient understanding, expectations and experiences of deprescribing are limited
- there are strong pressures to prescribe opioids
- and a reluctance to change is common



Four enablers were also identified:

- · awareness of the negative effects of opioids and benefits of deprescribing
- clear communication and expectations for deprescribing
- availability of support for patients
- and support for prescribers

The team mapped these barriers and enablers to behavioural theory to help explain the complex processes involved in prescribing and inform strategies likely to overcome the problem.

#### By understanding why behaviour occurs, strategies can be designed to change it.

Theoretical domains relevant to both patients and healthcare professionals included 'beliefs about consequences' (for example, fear of what will happen if deprescribing occurs), 'environmental context and resources' (for example, perceived or actual lack of alternative analgesics) and 'social influences' (for example, the need for supportive patient-provider relationships). Strategies that could address these factors included providing better access to chronic pain clinics and non-opioid alternatives, providing healthcare professionals with evidence-based guidance, tools and training to support deprescribing, and restricting quantities of opioids.

Understanding a patient's perspective on their outcomes from hip and knee replacement surgery is critical – a new study identifies the best tools to capture this information

Joint replacement surgery is the treatment of choice for patients with advanced joint disease, and is most commonly performed for severe hip or knee osteoarthritis.

With growing surgery rates around the world, we need to ensure the continually rising cost of performing high numbers of these procedures is truly valuable in terms of improved health outcomes. Understanding the patient's perspective on the outcomes that matter to them is a critical part of this decision making.

Patient-reported outcome measures (PROMs) are commonly used to evaluate surgical outcomes from the patient's point of view and can provide valuable information regarding pain, function and quality of life after surgery. The information can be incredibly valuable for monitoring patient outcomes, supporting quality improvement activities and enabling benchmarking

#### However, PROMs are only useful tools if

meaningful data are collected in a valid and reliable performed in Australia annually way. With different types of PROMs available, organisations need to consider ease of use of the Prof Ackerman's study included an extensive analysis of PROMs instrument, the burden it places on the HOOS-12 data from 3023 patients undergoing primary total hip patient to respond and the key measurement replacement and KOOS-12 data from 4010 patients undergoing properties of the PROMs instrument to ensure primary total knee replacement. useful information is collected that can support She explains "The HOOS-12 and KOOS-12 PROMs were more clinical care.

A novel study led by Professor Ilana Ackerman from the Monash Cabrini Department of Musculoskeletal Health and Clinical Epidemiology, published in Osteoarthritis and Cartilage journal, has tested two new PROMs for the first time with real-world longitudinal data. The Hip disability and Osteoarthritis Outcome Score (HOOS-12) and the Knee injury and Osteoarthritis Outcome Score (KOOS-12) PROMs, together with other diseasespecific and generic (non-disease-specific) PROMs instruments, were piloted over a two year period by the national Australian Orthopaedic Association National Joint Replacement Registry (AOANJRR) pilot PROMs program. The study provides the first evidence of their reliability and validity to evaluate patient outcomes after joint replacement.

Cross AJ, Buchbinder R, Mathieson S, Bourne A, Maher CG, Lin CC, O'Connor DA. (2022) Barriers and enablers to monitoring and deprescribing opioid analgesics for chronic non-cancer pain: a systematic review with qualitative evidence synthesis using the Theoretical Domains Framework. BMJ Qual Saf. 31(5):387-400. doi: 10.1136/ bmjqs-2021-014186.

Ackerman IN, Soh S-E, Harris IA, Cashman K, Heath E, Lorimer M, Graves SE. (2021) Performance of the HOOS-12 and KOOS-12 instruments for evaluating outcomes from joint replacement surgery. Osteoarthritis Cartilage. 29(6):815-823.

### CLINICAL EPIDEMIOLOGY O-



### 110,000+ hip and knee replacements are

responsive to change than other commonly used measures (for example, the Oxford Hip and Knee Scores and the EQ-5D-5L). The HOOS-12 and KOOS-12 also offer the advantage of generating separate pain, function and guality of life subscale scores—all important indicators of patient outcomes after hip and knee replacement surgery. The shortened format of these instruments (12 items vs 42 items for the original HOOS and KOOS tools) also reduces the responder burden for patients."

The study has demonstrated that the new HOOS-12 and KOOS-12 PROMs instruments are reliable, valid and responsive measures for evaluating outcomes after joint replacement surgery for osteoarthritis. Their ability to track improvement in hip and knee-related pain, function and quality of life after joint replacement surgery will be extremely valuable to patients, clinicians and registries.

### World-first rheumatology guidelines employing 'living evidence' methodology

The introduction of targeted therapies, including biological and targeted synthetic diseasemodifying antirheumatic drugs (b/tsDMARDs), has had a major impact on the management of inflammatory arthritis, including rheumatoid arthritis (RA), psoriatic arthritis (PsA) and axial spondyloarthritis (AxSPA).

While b/tsDMARDs are very effective, there are risks of side effects, especially infections, and they are often perceived as burdensome by patients. They are also very expensive and contribute significantly to the overall cost of PBS-funded medications in Australia.

Understanding the cost effectiveness in relation to quality of use is a strategic priority. One option is dose tapering and discontinuation of b/tsDMARDs in patients who have achieved a low disease activity state or remission, which would help reduce the economic impact of the drugs, as well as provide patients an option in balancing the benefits and risks of longterm therapy. Professor Rachelle Buchbinder AO (pictured) has driven the partnership of Monash Cabrini Department of Musculoskeletal Health and Clinical Epidemiology and the Australia and New Zealand Musculoskeletal (ANZMUSC) Clinical Trial Network with the Australian Rheumatology Association and involving Cochrane Musculoskeletal, which has recently led to the development of national living guidelines which has made recommendations on this topic. Living guidelines incorporate new evidence for individual recommendations as soon as it becomes available.

> Government expenditure on b/tsDMARDs subsidies for RA treatment grew to about \$383m in 2014



The guideline made conditional recommendations in favour of reducing the dose of b/tsDMARDs in people with RA or AxSpA who have achieved a stable low disease activity state. However, the impact of an inflammatory arthritis disease flare and the likelihood of recapturing disease control with resumption of the previous dose of b/tsDMARD are likely to be important considerations. An individual shared decision-making approach that considers individual circumstances and preferences was recommended. It also made a conditional recommendation against dose modification in people with PsA due to the relative lack of evidence. Abrupt discontinuation of b/tsDMARDs was not recommended in any of the three diseases.

The NHMRC-endorsed recommendations are part of the Australian Living Guideline for the Pharmacological Management of Inflammatory Arthritis. It is the world's first rheumatology guideline to employ 'living evidence' methodology, in which individual recommendations are updated in near real-time as new evidence emerges, supporting rapid changes in clinical practice. All updates to the recommendations, including the addition of new trial evidence, are published immediately via the web-based application MAGICapp (https://app.magicapp. org/#/guidelines) and can be viewed at www.mskguidelines.org.

Whittle SL, Glennon V, Johnston RV, Avery JC, Bell JS, Brennan SE, Fong C, Hissaria P, Horgan B, O'Neill S, Pisaniello HL, Trevena L, Whittaker GA, Wluka A, Buchbinder R. (2022) Australian recommendations on tapering of biologic and targeted synthetic disease-modifying anti-rheumatic drugs in inflammatory arthritis. Intern Med J. doi: 10.1111/imj.15816. BIOSTATISTICS

### **MOHAMMAD**

## Turning data into knowledge

### Meet our expert in biostatistics

Biostatistics is the scientific discipline concerned with how we ought to make decisions when analysing biomedical data. It is central to all of science, as all science needs evidence to be gathered, but it's the evaluation of the evidence that is critical to forming judgements.

The experts behind this science, biostatisticians, are responsible for making the connections, or finding a lack thereof, in the data. These are both equally important outcomes when answering pressing research questions such as whether a new drug works, what causes cancer and other diseases and how long a person with a certain illness is likely to survive. Biostatisticians play pivotal roles from the beginning to the end of studies, guiding study design and ensuring enough data and the right kind of information is being collected, as well as participating in the analysis, evaluation and interpretation of results.

Professor Mohammad Asghari-Jafarabadi joined Cabrini Research in April 2022 as the resident biostatistician for all research teams. An absolutely critical role for the research we undertake, Cabrini was incredibly excited to have Mohammad join the team, as he brings an enormous wealth of knowledge and experience, and is highly respected in his field.

Mohammad completed his PhD in biostatistics in 2010, through the School of Medicine at Tarbiat Modares University (TMU), Tehran, Iran. He was subsequently employed as the lecturer in biostatistics at one of the most prestigious universities in Iran, Tabriz University of Medical Sciences (TBZMED), Tabriz, Iran. Here, he has been involved in teaching advanced courses in biostatistics, software and modelling, as well as serving as a Board member for the Biostatistics in Ministry of Health and Medical Education of Iran. He also supervised multiple postgraduate students to their thesis completion and dissertation and is an editorial Board member of the leading international journals PONE and HPP.

In addition to his academic role at TBZMED, Mohammad has collaborated with a wide variety of research teams

- in various medical, life and health science fields – to design research projects and establish new data modelling options. In research, publications and the number of times these are cited are very important metrics that identify top researchers. Mohammad is considered an internationally outstanding researcher, with more than 800 research publications and 12,776 citations. In 2020, he was named as one of the world's most influential researchers on the Highly Cited Researchers list from Clarivate Analytics. The list recognises world-class researchers selected for their exceptional research performance, demonstrated by the production of multiple, highly cited papers that rank in the top 1% by citations for a given field in the last decade in Web of Science.

Following his goal to work and collaborate with scientists and researchers around the world in different areas of science, Mohammad made the decision to move with his family to Australia, landing in March 2022. At Cabrini, he is looking forward to opportunities to work with leaders in the healthcare research field, be a part of Cabrini's growth in research and to work collaboratively and build networks with our partners at Monash University.

Mohammad feels the best advice he could give someone who is planning a project is captured by the famous Iranian poet Hafez:

### The love seems to be easy in the first glance, but then the obstacles show up themselves on the way.

"Innovation and motivation are essential for successful projects, but other criteria are also incredibly important," he says.

"You need to consider securing sufficient funding, the ability to bring together a collaborative team, the feasibility of its delivery and a good level of internal validity.

"If your objectives, research design and methodology, data collection and analysis are not well designed, all the innovation in the world will mean nothing.

"Bioststatistics needs to be a part of any successful research team and project."

## Department of Urology





32 PUBLICATIONS





**CLINICAL TRIALS** 



### HEAD OF DEPARTMENT

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### **STUDENTS**

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Theranostic imaging of metastatic prostate cancer. The top panel shows the post therapy images after the first cycle of 177Lu-PSMA and shows that it has been taken up by the metastases. The lower panel is after the second dose and shows how much less uptake there is demonstrating a significant response.





### New research is paving the way for enhanced treatment of prostate cancer

Theranostics has so far only been used as a last treatment option in prostate cancer.

A key question is whether it is also beneficial in treating earlier stages of prostate cancer. Professor Mark Frydenberg AM is pursuing research that will answer this important question.

Theranostics is a personalised approach to treating prostate cancer, that uses PET scan imaging (a special type of scan) to see if the tumour biomarker, prostate-specific membrane antigen (PSMA), is present on tumour cells. Peptide receptor radionucleotide therapy (PRRT) such as Lutetium-PSMA-177 (177Lu-PSMA) is then administered via a patient's bloodstream. The 177Lu-PSMA targets and binds the prostate cancer cells identified by the PET scan, killing the cancer cells wherever they are in the body, while also limiting the impact on healthy cells.

Although currently not approved for use in Australia, clinical trials have shown promising results for 177Lu-PSMA to control disease progression in metastatic prostate cancer. However, these studies have only used 177Lu-PSMA in late stages of treatment. A new clinical trial, UpFrontPSMA, being led at Cabrini by Prof Frydenberg, in collaboration with the Peter MacCallum Cancer Centre, will investigate if receiving 177Lu-PSMA earlier in the prostate cancer disease trajectory can more effectively eradicate metastatic disease.

### UpFrontPSMA trial

For more than 50 years, the most common treatment for newly diagnosed metastatic prostate cancer has been surgical or medical castration via androgen deprivation therapy (ADT). In recent years, the strategy has changed to incorporate the earlier use of therapies including docetaxel chemotherapy, which has been shown to significantly improve clinical outcomes when added to ADT. However, even with the addition of docetaxel, progression to lethal metastatic castration resistant prostate cancer remains inevitable in nearly all patients. The UpFrontPSMA trial will investigate the early use of 177Lu-PSMA in addition to docetaxel to determine if the combined therapy approach can more effectively eradicate disease and improve outcomes for patients.

"We are really interested to see the outcomes from the UpFrontPSMA clinical trial. Not only does it have the potential to offer a new therapy strategy for patients, but it will also guide our research in using theranostics in even earlier stages of prostate cancer, before ADT hormone treatment commences," said Prof Frydenberg.

"We are desperately in need of treatment options" for patients with metastatic prostate cancer, to improve their outcomes, and their quality of life."



Prof Frydenberg (second from left) and the clinical team following completion of the first IRE procedures conducted at Cabrini.

### A new painless and minimally invasive surgical technique used in the treatment of prostate cancer

Irreversible Electroporation (IRE) therapy, also known as NanoKnife or focal therapy, is a new advance in the surgical treatment of prostate cancer. Painless and minimally invasive, IRE uses short duration, focused electric pulses to kill cancer cells, leaving surrounding healthy cells untouched and lessening side effects. Still in the early stages of development, and only accessible to patients with end stage prostate cancer, Prof Frydenberg's team are undertaking research on the use of this technology, its ability to effectively kill cancer cells (based on blood test response, MRI and prostate biopsies), its side effects (ideally demonstrating reduction in the side effects of erectile dysfunction and incontinence based on validated questionnaires), its ability to salvage failed radiation therapy in those who chose radiation as their primary treatment, and the ability to safely salvage the situation with conventional treatments such as radiation therapy or surgery, if the treatment is unsuccessful.

Patient access to IRE therapy at Cabrini, and Prof Frydenberg's research, would not have been possible without the generous support of numerous donors. Their funding has enabled Cabrini to purchase the IRE machine and support Prof Frydenberg to undertake critical research needed to advance its use in the treatment of prostate cancer.

### Preclinical models advancing new therapies for prostate cancer

Patient derived xenografts (PDXs) are proving to A bank of 59 well-characterised prostate cancer PDXs, derived from 41 tumours from 30 patients and supported by associated be a huge game-changer in fast-tracking new and resources (organoids, serum, DNA/RNA profiles and tissue), is emerging therapies for prostate cancer patients. available for collaborative projects. The collection includes many As part of a clinical-laboratory collaboration, Professor Mark standout characteristics that will help accelerate discoveries including representing the clinico-pathological and genomic Frydenberg AM (pictured below, left) has been working with spectrum of prostate cancer, from treatment-naïve primary Professor Gail Risbridger and Associate Professor Renea Taylor to develop state-of-the-art prostate cancer PDXs, known as the tumours to castration-resistant metastases, the availability of Melbourne Urological Research Alliance (MURAL) collection. matched primary and metastatic tumours from the same patient, and different metastatic sites from the same patient.

PDXs are reliable and representative preclinical models of The MURAL collection has been an eagerly anticipated cancer, where the tissue or cells from a patient's tumour are implanted into immunodeficient or humanised mice. As a research resource that will facilitate pre-clinical testing of new and emerging targeted therapies and biological discovery in whole animal model rather than isolated tissue, PDXs have prostate cancer. Taking eight years to create, and published in many benefits, most notably being the cancer cells are in a mixed 'natural' environment. This means they are not isolated the esteemed international journal Nature Communications, it is now garnering both national and international attention and will as tumour cells and they interact with other cell types including drive significant research discoveries in the future. immune cells and vascular cells, like a tumour would in a patient, providing a very close representation of the disease.

Risbridger GP, Clark AK, Porter LH, Toivanen R, Bakshi A, Lister NL, Pook D, Pezaro CJ, Sandhu S, Keerthikumar S, Quezada Urban R, Papargiris M, Kraska J, Madsen HB, Wang H, Richards MG, Niranjan B, O'Dea S, Teng L, Wheelahan W, Li Z, Choo N, Ouyang JF, Thorne H, Devereux L, Hicks RJ, Sengupta S, Harewood L, Iddawala M, Azad AA, Goad J, Grummet J, Kourambas J, Kwan EM, Moon D, Murphy DG, Pedersen J, Clouston D, Norden S, Ryan A, Furic L, Goode DL, Frydenberg M, Lawrence MG, Taylor RA. (2021) The MURAL collection of prostate cancer patient-derived xenografts enables discovery through preclinical models of uro-oncology. Nature Communications. 12(1):5049. doi: 10.1038/s41467-021-25175-5.



### New research aimed at improving the accuracy of predicting prostate cancer risk

Prostate cancer represents a spectrum of disease. Some men newly diagnosed with prostate cancer will be classified as having low-risk disease and their cancer may be harmless. It may never cause symptoms or death if left untreated. Other men are classified as high-risk and will require immediate intervention. Understanding how to accurately and safely predict the risk of prostate cancer is critical for improving patient outcomes and their experience.

Prostate-specific antigen (PSA) screening remarkedly improved the early detection of prostate cancer, but it has also created a new challenge of over-diagnosis of harmless cancers, leading to overtreatment and increased morbidity associated with over investigation, such as through the frequency of invasive monitoring with biopsies. Accurate risk prediction will allow us to safely reduce the use of invasive procedures and unnecessary treatments. But we need to be absolutely sure we are not potentially missing a prostate cancer diagnosis that does require treatment.

New advances in imaging for diagnosing prostate cancer are showing great potential to reduce over-diagnosis and overtreatment. The improved accuracy of multi-parametric magnetic resonance imaging (mpMRI) has firmly established its role in the diagnosis pathway of prostate cancer. Prostate specific membrane antigen (PSMA) positron-emission tomography (PET) is also showing promise as a potential addition to mpMRI. Ground-breaking research led by Professor Mark Frydenberg AM (pictured) has demonstrated that pairing mpMRI and PSMA PET imaging modalities improves the ability to locate and diagnose recurrent prostate cancer, leading to better treatment selection for patients. They have also successfully demonstrated that the maximum standardised uptake value

Prostate cancer is the most commonly diagnosed cancer and the

SECOND leading cause of cancer death in Australian men





**3300+** Australian men die from prostate cancer every year

(SUVmax) read out from PSMA PET scans correlates with the PSMA-expression in primary prostate cancer and allows better diagnosis and treatment decisions for localised intermediaterisk prostate cancer. The results are encouraging for the ability of PSMA PET to identify those prostate cancers that need intervention.

Prof Frydenberg is now expanding on this research, leading two new clinical trials at Cabrini, PIAS and Primary2, that are investigating the utility of PSMA PET. Both trials are being conducted in collaboration with the Peter MacCallum Cancer Centre.

### PIAS trial

The PIAS trial is exploring 'active surveillance' and the use of PSMA PET. Active surveillance has emerged as a treatment strategy for low-risk and favourable intermediate-risk prostate cancer, to reduce over-treatment. It relies on close observation of patients with regular follow up visits with PSA tests, MRI scans and biopsies, with the intention of providing curative treatment if there is any indication of significant disease progression. The aim of active surveillance is to minimise morbidity, without compromising survival.

The frequency of invasive biopsies used in active surveillance raises a significant concern of over-investigation, and as such the option of replacing these with mpMRI and PSMA PET is of great interest. Patients at Cabrini will have the chance to participate in the PIAS trial, which will be the first study to evaluate if the combined use of mpMRI and PSMA PET can achieve a high enough accuracy of cancer detection to safely reduce the frequency of biopsies in active surveillance.

50

Australian men are

**DIAGNOSED** with

every single day

prostate cancer

### Primary2

Primary2 is looking at whether the addition of PSMA PET imaging will more accurately detect if someone has prostate cancer. Currently, in men with prostate cancer, a MRI of the prostate is done to help doctors decide if prostate cancer is present. If the scan suggests prostate cancer, a biopsy is needed to confirm. Although the MRI usually does well, some prostate cancers can be missed. A doctor may think it has been missed for many reasons, such as a PSA blood test result or family history of prostate cancer. This means some patients with a normal MRI may still have a prostate biopsy to confirm a cancer has not been missed.

The Primary2 trial will be recruiting men who have a normal or inconclusive MRI scan, to see if adding a PSMA PET scan can assist in early diagnosis of prostate cancer, help guide the biopsy needle in men with a positive scan, or avoid a biopsy in men with a normal scan.



Research is costly, but it's the only way we can make advances to improve outcomes for patients. To conduct these trials at Cabrini, provide opportunities for our patients to participate, and conduct other research, we needed funding. We are incredibly grateful for the generous support of the Cabrini Foundation donors, who are supporting Prof Frydenberg's cutting-edge research in prostate cancer. The findings from these studies, and other ongoing research, will change the future for thousands of men diagnosed with prostate cancer.

Xue AL, Kalapara AA, Ballok ZE, Levy SM, Sivaratnam D, Ryan A, Ramdave S, O'Sullivan R, Moon D, Grummet JP, Frydenberg M. (2022) 68Ga-Prostate-Specific Membrane Antigen Positron Emission Tomography Maximum Standardized Uptake Value as a Predictor of Gleason Pattern 4 and Pathological Upgrading in Intermediate-Risk Prostate Cancer. J Urol. 207(2):341-349. doi: 10.1097/JU.00000000002254.

Kalapara AA, Ballok ZE, Ramdave S, O'Sullivan R, Ryan A, Konety B, Grummet JP, Frydenberg M. (2022) Combined Utility of 68Ga-Prostate-specific Membrane Antigen Positron Emission Tomography/Computed Tomography and Multiparametric Magnetic Resonance Imaging in Predicting Prostate Biopsy Pathology. Eur Urol Oncol. 5(3):314-320. doi: 10.1016/j.euo.2021.02.006.

PIAS Trial - Prospective cross-sectional study of 68Ga-PSMA PET/CT in addition to mpMRI in men undergoing biopsy during Active Surveillance for low- or intermediate-risk prostate cancer

Primary2 Trial - Prospective multi-centre randomised trial of the additive diagnostic value of PSMA PET in men with negative/equivocal MRI in the diagnosis of significant prostate cancer

UROLOGY O-

## Department of Cardiology Research





79 PUBLICATIONS





**CLINICAL TRIALS** 

### HEAD OF DEPARTMENT

**Associate Professor Nathan Better,** Academic Director of Cardiology Research

### **RESEARCH FELLOW**

Dr Rayan Alharbi

### CARDIOLOGIST RESEARCHERS

Dr Arul Baradi Dr Jonathan Habersberger Professor Peter Kistler Associate Professor Jeffrey Lefkovits Professor Samuel Menahem Dr Swati Mukherjee Dr Frank Panetta Mr Adrian Pick Dr Manuja Premaratne Dr Michael Seman Mr Gil Shardey Dr James Shaw Associate Professor Dion Stub Associate Professor Gautum Vaddadi





### Atrial fibrillation – advancing mapping and ablation strategies to improve cure rates and patient outcomes

Cabrini Research recognises and awards researchers for their commitment and passion and outstanding research outcomes every year.

In 2021, we recognised the exemplary research of Professor Peter Kistler, awarding the Publication of the Year Award for his paper 'Alcohol abstinence in drinkers with atrial fibrillation'. It had global impact and was published in the prestigious New England Journal of Medicine.

A clinician cardiologist and electrophysiologist, Prof Kistler is an internationally renowned leader in the treatment and research of heart rhythm disorders. Atrial fibrillation (AF) is the most common heart rhythm disturbance world-wide and increases the risk of stroke, heart failure and mortality. It is estimated more than 5% of the patient population over 55 years of age has AF. In 2018, AF was listed as an associated cause of 11,960 deaths in Australia (7.6% of all deaths), a number which has almost doubled between 2001 and 2018.

Prof Kistler's New England Journal of Medicine publication was the first randomised study to determine the impact of alcohol abstinence on AF, demonstrating that abstinence from alcohol reduces arrhythmia recurrences in regular drinkers with AF. The study significantly strengthened the role of lifestyle interventions, which are now referred to as the fourth pillar in AF management. Population studies have long demonstrated an association between alcohol and AF but alcohol counselling was not routinely performed. As a result of Prof Kistler's study, alcohol reduction is now included in the American Heart Association lifestyle guidelines in management of AF. Prof Kistler's research has attracted worldwide media attention including the front page of The Age and featured on Channel 7 and 10 National News. He was also awarded the RT Hall Prize in 2020 (outstanding cardiac researcher from Cardiac Society Australasia) in part as recognition of this publication.

In 2018, AF was an associated cause of more than **11,000** deaths in Australia





AF is the most common heart rhythm disturbance world-wide

### Catheter ablation is the only form of cure

Catheter ablation is an internationally recognised treatment for AF that is suitable for some patients with AF. Catheter ablation uses small burns (radiofrequency) or freezing (cryoballoon) to induce scarring on the inside of the heart that breaks up the electrical signals that cause the AF, restoring a normal heartbeat. Although there have been significant advances in our understanding and technology, there remains a substantial proportion of patients who experience recurrent AF requiring repeat procedures. The optimal approach to ablative management for recurrent AF remains unclear.

Prof Kistler is driving novel research that will facilitate improvements in treatment, through cutting edge mapping and catheter ablation techniques for AF. Cabrini delivers more than 300 AF ablation procedures per year and ranks as one of the busiest catheter laboratories in Australia. The research will have incredible impact for not only our patients, but patients worldwide.

Voskoboinik A, Kalman JM, De Silva A, Nicholls T, Costello B, Nanayakkara S, Prabhu S, Stub D, Azzopardi S, Vizi D, Wong G, Nalliah C, Sugumar H, Wong M, Kotschet E, Kaye D, Taylor AJ, Kistler PM. (2020) Alcohol abstinence in drinkers with atrial fibrillation. N Engl J Med 382(1):20-28. doi: 10.1056/NEJMoa1817591.





Professor Peter Kistler and Dr Louise Segan, cardiologist and PhD candidate.

### Improving the care pathway for patients with degenerative aortic valve heart disease

Associate Professor Dion Stub is an interventional cardiologist and clinician scientist specialising in coronary and structural heart procedures.

Internationally recognised for his research, having published more than 200 papers, he helped develop Australia's first treatment pathway for patients with refractory cardiac arrest. As part of his international postdoctoral fellowship, he spent 12 months at St Paul's Hospital, Vancouver, as an interventional fellow, working with Professor John Webb, an international expert in transcatheter aortic valve replacement (TAVI) for aortic valve disease. Since then, A/Prof Stub has become one of the leading interventional cardiologists performing TAVIs in Australia.

Degenerative aortic valve disease is the most prevalent valvular heart disease in the elderly. If severe and left untreated after the appearance of symptoms, there is a 50% chance a patient will die after two years. In patients with diseased aortic valves, catheter-based replacement of the sick valve by TAVI is a less invasive alternative for surgical valve replacement. TAVI was first performed in Australia in 2008 and continues to grow by 30-40% in procedure numbers every year. Between April 2018 and May 2020, 4098 TAVI procedures were performed in Australia. It has become the procedure of first choice in patients with increased operative risk worldwide and now is becoming increasingly available to lower risk patients.



TAVI is the procedure of **first choice** in patients with increased operative risk of aortic valve replacement



During a TAVI procedure, the valve is implanted through a catheter from the groin, removing the need for open heart surgery and enabling a quicker recovery. Despite its usual success and performance with local anaesthetic whilst the patient is awake, TAVI is heart surgery with small but real risks of complications. There remains a risk of major or life-threatening bleeding from the access site, especially because patients require blood-thinners (heparin) during the implantation. At the end of the procedure, when blood-thinners are no longer required, the effect of heparin can be reversed by protamine injection; however, routine use of protamine (at the end of every procedure in eligible patients) has not been tested in TAVI patients in a randomised trial. The decision to use protamine or not is made by the cardiologist performing the TAVI. This is the current standard of practice and formal treatment guidelines are needed.

A new multisite study being led at Cabrini by A/Prof Stub is testing a new approach to optimise the TAVI procedure. The ACE-PROTAVI study is examining if routine use of protamine is safer and has better patient outcomes than current standard practice, in which it is entirely up to the TAVI operator, and often not used.

The results of this study will help to improve the safety of the TAVI procedure and its outcomes for patients (reduced morbidity and mortality) and society (reduced demand on constrained economic resources).

It is hoped that these findings will help us develop an improved care pathway for patients that undergo TAVI.

This research is being supported by a Cabrini Foundation grant.



In 2021, there were **500,000+** Australians currently living with heart valve disease





A/Prof Dion Stub (right) and Dr James Shaw.

## New research aimed at preventing heart disease in women

A new clinical trial is looking at preventing heart disease in premenopausal women who are deemed to be at high risk of heart disease based on the presence of non-traditional cardiovascular risk factors.

Dr Swati Mukherjee is one of only 17 female cardiologists in Australia and New Zealand who specialises in coronary intervention. She is passionate about increasing awareness of women's cardiovascular issues including the importance of early detection in reducing heart disease in women.

Traditional risk factors for heart disease are well known. These include high blood pressure, high cholesterol, diabetes, family history, being overweight and being physically inactive. However, recent studies have shown that women can have 'nontraditional' risk factors for heart disease. Women who experience pregnancy complications of pre-eclampsia, gestational diabetes, gestational hypertension, small-for-gestational-age babies and placental abruption are at increased risk of ischaemic heart disease (also known as coronary artery disease). These complications occur in an immense 30% of pregnant women in Australia.



Awareness of these risk factors in the general population and among doctors is very low. However, all of these 'nontraditional' risk factors increase the chance of women developing heart disease later in life.

A Women's Heart Clinic has been established at The Heart Centre, Alfred Hospital and Cabrini Health. These clinics have already been established as an innovative clinical service in Victoria, however no clinical study has yet assessed the effectiveness of a Women's Heart Clinic on early modification of cardiovascular risk (and hence long-term cardiovascular events) in women with previous vascular complications of pregnancy. The new study is assessing if a Women's Heart Clinic can reduce the risk of heart disease in women, such as heart attack and stroke, from developing later in life.

The study, run over the last two years, has almost completed its enrolment of 150 participants across three centres in Melbourne

(Alfred Health, Cabrini Health and Outreach at Dandenong). As the Principal Investigator at Cabrini, Dr Mukherjee has contributed substantially, recruiting almost a third of the women to the study at Cabrini. The study has many promising outcomes, from helping to reduce the cardiovascular risk of the women participating, helping treat other women in the future and determining if a healthcare service specifically designed to help women is helping to prevent heart disease.

Dr Mukherjee said of the research "Women worry about cancer and die of heart disease! This study will empower women to recognise their cardiovascular disease risk and by providing early intervention it will improve cardiovascular health outcomes across their life course."



50 women suffer a heart attack every day







### Recognition of interventional cardiology excellence

In May 2022, Dr Mukherjee was awarded a prestigious FSCAI Fellowship by the Society for Cardiovascular Angiography and Interventions (SCAI). SCAI is the leading non-profit medical society in the USA, representing invasive and interventional cardiology. Only a few FSCAIs are awarded to interventional cardiologists from around the world each year. They are recognised as a mark of excellence, and serve as a prestigious ranking of interventional cardiologists. Nominated by peers and seniors in the cardiology field, FSCAI fellows are recognised as having 'mastery over their art and practicing with high ethical standards'. Dr Mukherjee is the first female Australian cardiologist to be awarded a FSCAI, and one of only a few cardiologists from Australia to hold the award.

Only highly experienced members who have met performance standards established by SCAI, and who have garnered excellent peer recommendations, can achieve the status of FSCAI. Being a Fellow of SCAI puts Dr Mukherjee among the most notable cardiologists across the globe.



A pregnant woman with a complication such as preeclampsia is

**3X** more likely to develop high blood pressure, and

more than **2x** more likely to develop coronary heart disease

## Szalmuk Family Psycho-Oncology Research Unit



### HEAD OF DEPARTMENT Professor David Kissane AC

Jane Appleton, Research Nurse, The University of Notre Dame Australia
Dr Irene Bobevski, Research Fellow
Jonathon Lennon, Research Manager, The University of Notre Dame Australia
Genevieve Murphy, Research Nurse, Cabrini

### STUDENTS

Dr Lucy Kernick, PhD, The University of Notre Dame Australia
Dr Felicity Moon, PhD, Monash University
Katarina Needham, MD, The University of Notre Dame Australia
Isobel Payne, MD, The University of Notre Dame Australia
Chelsea Perera, MD, The University of Notre Dame Australia
Priyanka Pinto, MD, The University of Notre Dame Australia
Dr John Wenham, PhD, The University of Notre Dame Australia

## Attention to psycho-existential suffering in palliative care is clearly needed

Patients with unrecognised psycho-existential suffering including depression, unaddressed demoralisation and unabating anxiety account for some of the most vulnerable patients in palliative care.

Psycho-existential symptoms are common yet often missed or neglected by a biomedical ethos in some services. With limited access to skilled staff and evidence-based management, this results in as many hospital admissions and extended lengths of stay as unmanaged physical symptoms. These patients are in dire need of treatments to optimise their adjustment and prevent suicidal thinking. Screening can be an effective way to recognise and respond to this need.

A new education and knowledge translation project led by Professor David Kissane AC for Cabrini Health, The University of Notre Dame Australia and the Cunningham Centre at St Vincent's Sydney, has successfully implemented the Psychoexistential Symptom Assessment Scale (PeSAS) screening tool into routine use across 18 leading services in all states and territories.

Funded by a \$1.05 million Australian Commonwealth Department of Health Palliative Care National Program grant, Prof Kissane led the development of the PeSAS screening tool, which uses six items to assess demoralisation and existential concerns and four items to assess other psychosocial issues.

COVID-19 restricted the early phase of the project, but PeSAS screening was implemented across six palliative care services in Victoria, New South Wales and the Australian Capital Territory in 2021. More than 216 clinicians (nurses, physicians and psychosocial health providers) were trained and upskilled on how to explore and discuss psycho-existential symptoms, and treat or refer to appropriate expertise. Data so far, collected from 1405 patients, has demonstrated just how large the problem is and the dire need for recognition, with more than one third of palliative care patients experiencing significant occurrences of psycho-existential symptoms, including anxiety (41.1%), discouragement (37.6%), hopelessness (35.8%), pointlessness (26.9%), depression (30.3%), and the wish to die (17%). As 2022 unfolds, more than 500 palliative care clinicians have been trained and the program is gaining strength.

Other key findings from the first report were:

 Clinicians, as a result of experiential roleplay exercises, grew significantly in confidence in assessing psycho-existential wellness in patients.

Kissane DW, Appleton J, Lennon J, Michael N, Chye R, King T, William L, Poon P, Kanathigoda S, Needham K, Bobevski I. (2022) Psycho-Existential Symptom Assessment Scale (PeSAS) Screening in Palliative Care. J Pain Symptom Manage. S0885-3924(22)00855-7. https://doi.org/10.1016/j.jpainsymman.2022.08.002

PSYCHO-ONCOLOGY O-



- Therapeutic strategies to restore hope and meaning will be central alongside management of anxiety and depression.
- Use of an implementation committee, engagement of site leadership, use of electronic recording of PeSAS and the development of local champions have proved helpful.
- When a biomedical tradition and pharmacological orientation prevailed, introduction of PeSAS was slower.
- The model is not generalisable, as each service has needed to identify and address local issues, a well described challenge of implementation programs.
- Implementation barriers included the prior ethos of the service, confidence in talking about these themes, electronic data entry and perceived time pressures.

The national implementation project is still in the rollout phase across Australia, due to be completed by the end of 2023. Future work will focus on the important, key long-term objective of program maintenance.

Prof Kissane said of the project, "We are grateful for this opportunity to upskill palliative care clinicians across Australia to better recognise suffering presenting as psycho-existential distress and help them to build skills to address this more effectively."

## HER Centre Australia – Health, Education and Research in Women's Mental Health



### HEAD OF DEPARTMENT

Professor Jayashri Kulkarni AM, Director, HER Centre Australia, Head of the Department of Psychiatry, Central Clinical School and Leader of the New Treatments for Acute Mental III-Health in Women Portfolio

Associate Professor Caroline Gurvich, Deputy Director, HER Centre Australia, Neuropsychologist and Leader of the Hormones and Cognition in Women Portfolio

Dr Leo Chen, Consultant Psychiatrist, Director of Training Alfred Psychiatry and Leader of the Therapeutic Brain Stimulation Treatment for Women Portfolio

Anthony De Castella, Centre Manager

Emorfia Gavrilidis, Clinical Trials Manager

Dr Eveline Mu, Post-doctoral Research Fellow in Trauma and Psychopathology

Dr Elizabeth Thomas, Post-doctoral Research Fellow in Neuropsychology and Leader of the Infertility in Women and Mental Health Portfolio

### PhD STUDENTS

Harjit Bagga, Monash University Carolyn Breadon, Monash University Tanya Gilmartin, Monash University Courtney McLean, Monash University Dinuli Nilaweera, Monash University Anne Powell, Monash University Jacqui Riddiford, Monash University Sarah Rotstein, Monash University Pranita Shrestha, Monash University Vanessa Zhu, Monash University



### HONOURS STUDENTS

Meg Allen, BBioMedSci, Monash University Isabel Foo, BMedSci, Monash University Palak Gupka, BMedSci, Monash University Maggie Huang, BBioMedSci, Monash University Karen Lee, BMedSci , Monash University Adithi Ramachandra, BBioMed, Monash University Tia Tsinanis, BBioMedSci, Monash University Sarah Woodward, BMedSci, Monash University

### MONASH UNIVERSITY SCHOLARLY **INTENSIVE PLACEMENT (SIP)**

Isabel Foo Megan Herson Olivia Leyden Nicole Moon Sarah Woodward

### Transforming women's mental health

The Department of Psychiatry – Central, based out of the Central Clinical School at The Alfred is headed by Professor Jayashri Kulkarni AM (pictured), who has also been directing the Monash Alfred Psychiatry research centre (MAPrc) since its establishment in 2002.

The Women's Mental Health division of MAPrc has always been the predominant research pillar of MAPrc, and in May 2022 Monash University recognised the ground-breaking work being performed in women's mental health by endorsing the establishment of a new University Research Centre – HER Centre Australia – Health, Education and Research in Women's Mental Health. HER Centre Australia is partnered by Alfred Health and Cabrini Health.

Prof Kulkarni, Director of HER Centre Australia, has been a long-standing and recognised leader in the field of women's mental health, both in Australia and internationally. In 2018, she was awarded an Order of Australia for her work in women's mental health and psychiatry over four decades. Prof Kulkarni is a specialist psychiatrist with expertise in hormones and mental health, the impact of trauma on mental health and wellbeing, and many other clinical aspects of women's mental health, and she has pioneered the use of estrogen and other hormones in the treatment of psychiatric illness in women.

Harnessing the capabilities of Monash University and translating research quickly into clinical practice at The Alfred and Cabrini hospitals, researchers and clinicians at HER Centre Australia are in an excellent and unique position to really develop muchneeded, new, real-world approaches for women with mental



**47%** of Australian women (**3.5 million**) have experienced mental illness at some time



health issues. For far too long, women's mental health has been a neglected area. Particularly now, in the aftermath of the recent pandemic, we need new effective approaches for women with depression, anxiety and complex PTSD. Preventative measures are also needed to improve the mental health and wellbeing for many women whose quality of life was impaired before the pandemic and then worsened by it. HER Centre Australia provides new hope for better outcomes for women, which helps everyone, since women's mental health is everyone's business.

A series of launch activities have been held, the first being the official opening ceremony and public lecture on women's mental health held at the Melbourne Town Hall on 20 October 2022. The official patrons of the Centre, Her Excellency the Honourable Linda Dessau AC and her husband Mr Anthony Howard AM QC, also hosted a morning tea at Government House in November. In March 2023, HER Centre Australia will convene Australia's inaugural Asia Pacific Women's Mental Health Conference, showcasing a mix of scientific, clinical and policy related presentations. For more information about HER Centre Australia, visit: monash.edu/medicine/her-centre









HER Centre Australia team.

## Lisa Thurin Women's Health Centre



### Why women's mental health?

Data from many reputable sources<sup>1,2,3</sup> all confirm the same facts – women experience more mental ill health than men, with almost double the incidence of depression and four times as much anxiety. The reasons for this include environmental factors such as violence against women, poverty, imbalance in power, lower wages and cultural expectations. There are also many biological factors including the impacts of hormone fluctuations with specific disorders emerging premenstrually, post childbirth and around menopause. Importantly, there are also differences in stress management styles that can disadvantage women. The combination of all these contribute to the greater prevalence of mental health issues in women.<sup>4</sup> The impact of the COVID-19 pandemic was to worsen many situations for women, leading to even greater mental health concerns for women.<sup>5</sup>

Women's mental health needs greater recognition as a separate area of need, including the development of new treatments and approaches. New research and new services tailored for women are urgently needed.

Two recent developments are set to address these issues and dramatically transform the way mental illness is understood and treated, both at Cabrini and in the broader community. They are the opening of the Lisa Thurin Women's Health Centre at Cabrini Health in September 2021 and the establishment of the Monash University HER Centre Australia in early 2022.

## Lisa Thurin Women's Health Centre at Cabrini

The Lisa Thurin Women's Health Centre at Cabrini Elsternwick is home to Australia's first private, women-only mental health hospital. Located in the heart of Elsternwick, the Cabrini Women's Mental Health service focuses on treatment for mental health conditions and is underpinned by compassion and kindness. This contemporary 30-bed inpatient unit primarily focuses on treatment for mental health conditions including:

- Mood disorders
- Addictions
- Complex trauma disorders, including post-traumatic stress disorder (PTSD)

The service offers a short-stay mental health program supported with intensive day programs, telehealth and community support. It offers targeted treatments for improving women's mental health. Women have access to an innovative, biopsychosocial package of care, which provides holistic treatments designed to optimise outcomes for women with mental ill health.

The service operates under the principle that women experiencing acute phases of mental illness have a better response to treatment, better outcomes and better overall wellbeing when they receive treatment in a women-only facility with treatments and programs that are individualised to the specific needs of women and to the specific characteristics of the illness.

In addition to providing the best possible care, tailored to the needs of women, the Lisa Thurin Women's Health Centre will conduct and support cutting-edge research in partnership with the Monash University Department of Psychiatry – Central's HER Centre Australia.

Research conducted in the centre has two main aims:

- Assessing and reporting on the outcomes of the service model being delivered
- Conducting clinical research to improve our understanding and treatment of mental illnesses that impact women

For more information about the Lisa Thurin Women's Health Centre, visit www.cabrini.com.au/locations/cabrini-wmh

We thank Lisa Thurin and Gandel Foundation for their generosity and support in establishing this important new facility where women can feel safe and supported as they deal with their mental health and wellbeing needs.

#### References

- 1. https://www.aihw.gov.au/reports/mental-health-services/mental-health
- 2. https://www.abs.gov.au/statistics/health/mental-health/national-study-mental-health-and-wellbeing/2020-21

3. Salk RH, Hyde JS, Abramson LY. Gender differences in depression in representative national samples: Meta-analyses of diagnoses and symptoms. Psychol Bull. 2017 Aug;143(8):783-822. doi: 10.1037/bul0000102. Epub 2017 Apr 27. PMID: 28447828; PMCID: PMC5532074

- 4. https://www.abs.gov.au/statistics/health/mental-health/national-study-mental-health-and-wellbeing/latest-release.
- 5. Women's Mental Health Alliance, Policy brief: Impacts of COVID 19 on women's mental health and recommendations for action UPDATE October 2020.







**1 in 6** women in Australia will experience depression

The Lisa Thurin Women's Health Centre and the nursing team, led by nurse manager Jess Duda (below, right).

## Department of Health Informatics



### HEAD OF DEPARTMENT

**Dr David Rankin,** Director Clinical Governance and Informatics

**Isabel LeonEscobar,** Manager Clinical Business Analysis

### **PhD STUDENTS**

**Bernard Bucalon,** The University of Sydney, DHCRC -Practice Analytics

**Jia Wei Harvey Koh,** The University of Sydney, DHCRC - Practice Analytics

Alexandra Mullins, Monash University, GRIP

**Chinedu Ossai,** Swinburne University of Technology, DHCRC - Practice Analytics

Ali Tehrani, Monash University, GRIP

**Emma Whitelock-Wainwright,** Monash University, DHCRC - Practice Analytics

### MONASH UNIVERSITY SCHOLARLY INTENSIVE PLACEMENT (SIP)

#### Jay Ee Chew

Erin Roche

### CABRINI SENIOR MEDICAL STAFF SCHOLARSHIPS - MONASH MEDICAL STUDENTS

Nada Hasan

**Denise Tiong** 

Savannah Vote

### Data is improving how we deliver care and provide a safe and positive experience for our patients

The Department of Health Informatics, led by Dr David Rankin, is working on several projects with Monash University medical students who are involved in research placements. The students, supported by competitive Senior Medical Staff Association research scholarships are investigating key.

The students, supported by competitive Senior Medical Staff Association research scholarships, are investigating key healthcare service questions that can lead to practical changes to how we deliver care. The projects will impact many areas of our service including how we improve services for patients through their experience, increase patient safety through reporting and ensure our patients have support on discharge.

## Falls – improving reporting to change practices and decrease incidences

Patient falls are the most frequently reported safety incident in hospitals. Accurate reporting of patient falls is critical for informing prevention practices and policies, with the goal of reducing the incidence of falls and improving patient safety.

Savannah Vote has been reviewing the completion rates of falls risk tools and the barriers nurses face in completing the tools. Her research has identified significant variance in the percentage of patients who have a documented risk assessment and the way the forms are completed. She is now working with nurses to identify barriers to completing the form and ways the process could be improved.

## Understanding complaints in order to improve our delivery of care

Positive patient experience is a key part of high quality healthcare. By identifying the characteristics of patient complaints, Cabrini can determine if there are certain aspects of care that generate more complaints and if we are meeting the needs of various patient groups. Understanding patients who lodge complaints will inform evidence-based recommendations to ensure all patients are receiving highquality, personalised care.

Isabel LeonEscobar and Dr David Rankin

The findings will be useful in changing hospital policies and systems and in ensuring we better meet the needs of various patient groups, by facilitating better treatment, care and patient satisfaction.

### Accuracy of medication discharge summaries

An important part of excellent healthcare delivery is ensuring patients are well supported on discharge from hospital. Effective and accurate communication with their community healthcare provider is a key aspect of patient support.

Denise Tiong is looking at the accuracy of the medication discharge summary that is sent to a patient's GP. Her work has reassuringly found that the discharge medication summary is a true and accurate reflection of the medication the patient was on at the time of discharge. Denise is also examining the records of patients who were discharged on multiple opioid medications.



## Intensive Care Research Unit



**CLINICAL TRIALS** 

### DIRECTOR OF INTENSIVE CARE UNIT

Associate Professor Vineet Sarode

**PUBLICATIONS** 

### HEAD OF RESEARCH UNIT

Associate Professor David Brewster, Deputy Director of Intensive Care Unit, Head of ICU Research Unit, Clinical Dean for the Monash University Clinical School

Lisa Dougherty, Research Co-ordinator

### INTENSIVE CARE PHYSICIANS

Professor Warwick Butt Dr Josh Ilhe Dr Dierdre Murphy Dr Steve Philpot

### **STUDENTS**

PRESENTATIONS

**Associate Professor David Brewster,** PhD, Monash University

**Dr Steve Philpot,** Masters of Health and Medical Law, Melbourne University

### Identifying modifiable variables to reduce the risk of patient cardiovascular collapse during emergency intubation

Tracheal intubation is a high-risk procedure commonly performed in critically ill patients who are suffering from severe respiratory problems and requiring support to breathe.

The International Observational Study to Understand the Impact and Best Practices of Airway Management in Critically III Patients (INTUBE) was conducted to gain a better understanding of the complications experienced by critically ill patients undergoing intubation in intensive care units (ICUs), emergency departments and wards.

INTUBE is the largest study of intubations in critically ill patients ever conducted, including 2964 patients, from 197 sites, in 29 countries across five continents.

Cabrini researcher Associate Professor David Brewster (pictured), Deputy Director of Intensive Care at Cabrini Health and the Clinical Dean for the Monash University Clinical School, was the national coordinator for the INTUBE study in Australia and New Zealand, and a co-author of the publications.

The INTUBE 2021 JAMA publication put a spotlight on the severity and frequency of intubation complications. Concerningly, the results showed more than 40% of patients suffer a lifethreatening complication during intubation. A new publication from the INTUBE study has now looked further into periintubation cardiovascular instability/collapse events (events occurring within 10 minutes of intubation), the predominant complication experienced by patients undergoing emergency intubation in the original JAMA study.

Cardiovascular instability/collapse covers a broad range of medical events, defined as sudden loss of effective blood flow due to cardiac and/or peripheral vascular factors that may reverse spontaneously (e.g. vasovagal syncope) or require an intervention (e.g. cardiac arrest).

The new INTUBE study outlines that peri-intubation cardiovascular instability/collapse was an extremely common occurrence, experienced by 1199 of 2760 patients (43.4%), and placed patients at almost a triple risk of death in ICU or within

Russotto V, Tassistro E, Myatra SN, Parotto M, Antolini L, Bauer P, Lascarrou JB, Szułdrzyński K, Camporota L, Putensen C, Pelosi P, Sorbello M, Higgs A, Greif R, Pesenti A, Valsecchi MG, Fumagalli R, Foti G, Bellani G, Laffey JG; INTUBE Study Investigators. (2022) Peri-intubation Cardiovascular Collapse in Critically III Patients: Insights from the INTUBE Study. Am J Respir Crit Care Med. doi: 10.1164/rccm.202111-2575OC.

Russotto V, Myatra SN, Laffey JG, Tassistro E, Antolini L, Bauer P, Lascarrou JB, Szuldrzynski K, Camporota L, Pelosi P, Sorbello M, Higgs A, Greif R, Putensen C, Agvald-Öhman C, Chalkias A, Bokums K, Brewster D, Rossi E, Fumagalli R, Pesenti A, Foti G, Bellani G; INTUBE Study Investigators. (2021) Intubation Practices and Adverse Peri-intubation Events in Critically III Patients From 29 Countries. JAMA. 325(12):1164-1172. doi: 10.1001/jama.2021.1727.

#### INTENSIVE CARE O-



28 days of an ICU stay. To identify variables that could be modifiable to improve outcomes, they characterised the most common factors that were associated with cardiovascular instability/collapse events. Risk factors were found to be older age, higher heart rate, lower systolic blood pressure, lower oxygen saturation as measured by pulse oximetry/FIO2 before induction and the use of propofol as an induction agent.

While many of these factors are not modifiable, the use of propofol is a potentially modifiable intervention. Propofol is a common sedative agent known to provide excellent intubation conditions without the use of neuromuscular blocking agents. The current study suggests that using propofol to intubate critically ill patients should be reconsidered.

## Alan, Ada and Eva Selwyn Emergency Department



### DIRECTOR OF EMERGENCY MEDICINE Dr Ian Turner

### EMERGENCY PHYSICIANS

Associate Professor Michael Ben-Meir Dr Gabriel Blecher Dr Lisa Brichko Dr James Ho Associate Professor Keith Joe Dr Kathryn Law Professor Katie Walker

Deanne Robinson, Nurse Manager Blessing Gazi, ANUM Emergency Department

### STUDENT

Alexandra Mullins, PhD, Monash University

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### EMERGENCY MEDICINE O-



### A research partnership between Cabrini and Monash sheds new light on the underutilisation of My Health Record in emergency departments

Personal electronic health records (EHRs) support patient health information to be shared with consumers and authorised healthcare providers. Consequently, EHRs are considered pivotal in the transformation of healthcare as they provide access to information about patients that may be otherwise unavailable.

The benefits of EHRs are anticipated to be prominent in the emergency department setting as clinicians are often required to make decisions without historical patient information.

The Australian Department of Health designed and implemented a national EHR system, My Health Record (MHR), in 2012, investing close to \$2 billion to support implementation, adoption and digital infrastructure. Individual healthcare services – such as Cabrini Health – and state governments also invested significant funds into infrastructure and to optimise implementation and adoption. However, despite the sizable investment and promise, use and outcomes associated with MHR across emergency departments in Australia are inadequately understood.

As part of the Monash University Graduate Research Industry Partnerships (GRIP) program, Alex Mullins' (pictured) PhD was codesigned with the Cabrini Health Emergency Department to generate knowledge regarding the use and utility of MHR in the emergency department. More specifically, Alex set out to explore:

What were the key drivers encouraging use and barriers discouraging use of MHR; how often MHR is being accessed in the emergency department, and changes in access over time; and the key clinician and patient-related predictors of clinician access of MHR.

Although Alex's research was mainly conducted at Cabrini Health, her research has generated knowledge that can be generalised outside of the emergency setting and Cabrini Health. Alex has published a number of novel studies as part of her thesis, shedding new light on how the MHR is being significantly underutilised, despite enormous investment and its likely value to clinicians:

• Surveys and interviews conducted with emergency department clinicians enabled Alex to explore if and how MHR is used in the Australian setting, the barriers and



benefits to use, and how use impacts patient care. The results exemplified that only half of all pharmacists, physicians and nurses in the emergency department (who participated) had used MHR one or more times. A lack of training, clinicians forgetting and low-guality records were identified as key barriers preventing use in the emergency setting.

- · Alex undertook an analysis of secondary routinely collected data, identifying that MHR is accessed by a pharmacist, doctor or nurse for only 20 per cent of all emergency department presentations, and almost entirely by pharmacists (18.31%). Doctors and nurses were found to barely access MHR at all (2.88% and 0.47% of all emergency department patients, respectively). While a small but significant increase in access observed across the three user groups (pharmacists, doctors and nurses) during the two-year study period, the underutilisation remains a concern.
- Alex undertook another study exploring patient and presentation context factors associated with MHR access by emergency department pharmacists, doctors and nurses. The analysis revealed that emergency department clinicians are more likely to access a patient's MHR if the patient is older in age and likely to be admitted - suggesting more complex conditions are associated with access.



The research undertaken by Alex throughout Patients who are older in age or who present with more complex conditions are also likely to benefit the most, when compared her PhD has contributed significant knowledge to consumers who present with lower acuity health conditions. to an area that has been scarcely explored in the In addition to training, education and reminders for clinicians, Australian setting. continuous improvements across data quality, policy and clinical guidance (for example, mandatory uploading) are required. A The findings highlight how underutilised MHR is by doctors whole-of-system approach is needed to improve the quantity and nurses in the emergency department, even though there and quality of data within MHR and to support meaningful use of appears to be value in using MHR (as pharmacists who are repeat MHR by consumers and clinicians. users demonstrate).

Mullins AK, Morris H, Enticott J, Ben-Meir M, Rankin D, Mantripragada K, Skouteris H. (2021) Use of My Health Record by Clinicians in the Emergency Department: An Analysis of Log Data. Front Digit Health. 3:725300. doi: 10.3389/fdgth.2021.725300.

Mullins AK, Skouteris H, Rankin D, Morris H, Hatzikiriakidis K, Enticott J. (2022) Predictors of clinician use of Australia's national health information exchange in the emergency Department: An analysis of log data. Int J Med Inform. 161:104725. doi: 10.1016/j.ijmedinf.2022.104725.

Mullins A, Skouteris H, Morris H, Enticott J. (2022) A Log Analysis Exploring the Predictors of Electronic Health Record Access by Clinicians for Consumers Aged 265 Who Present to the Emergency Department. Stud Health Technol Inform. 294:577-578. doi: 10.3233/SHTI220531.

Mullins A, O'Donnell R, Morris H, Ben-Meir M, Hatzikiriakidis K, Brichko L, Skouteris H. (2022). The effect of My Health Record use in the emergency department on clinician-assessed patient care: results from a survey. BMC Medical Informatics and Decision Making. 22(1):1-9 doi: 10.1186/s12911-022-01920-8.

## Department of Allied Health Research



Dr Annemarie Lee

Louise Tilley, Research Assistant **Fiona Dulfer,** Site coordinator My Therapy Project

Dr Tash Brusco **Dr Christina Ekegren Associate Professor Helena Frawley** Dr Kuan-Yin Lin **Mr John Pierce** Ms Sara Whittaker

Sarah Castricum, Bachelor of Physiotherapy, Monash University

Lewis Cattley-Stone, Bachelor of Physiotherapy, Monash University

Sonya Imbesi, Master of Cancer Science, University of Melbourne

Helen Kugler, PhD, La Trobe University

Jack Mason, Bachelor of Physiotherapy, Monash University

John Pierce, PhD, La Trobe University

**Pardis Sorti,** Bachelor of Physiotherapy, Monash University

Irene Terzopoulos, Bachelor of Physiotherapy, Monash University

Chanh Tran, Bachelor of Physiotherapy, Monash University

**Cindy Wong**, Bachelor of Physiotherapy, Monash University

### Patients in the driving seat to improve outcomes during rehabilitation

During rehabilitation we know patients don't often receive enough therapy and actually spend most of the day sitting and lying down. Participating in more occupational therapy and physiotherapy during inpatient rehabiliation enables patients to achieve better function and guality of life, and return home sooner.

Increasing the amount of supervised therapy is not always an option however, as extra staffing costs places considerable pressure on hospital budgets and resources.

My Therapy was an original program conceived and piloted at Cabrini, that was led by Dr Natasha Brusco. It is a consumer driven, self-management program designed to increase the amount of therapy participation by patients, through independent practice of exercise and activity in addition to usual care, without the need for additional staff. It is tailored to individual needs, prescribed by a patient's treating occupational therapist and physiotherapist, and is practiced within business hours, evenings or weekends. The pilot study demonstrated that patients participating in My Therapy can achieve 100 minutes of extra weekly practice alongside usual care inpatient rehabilitation. For every patient receiving usual care who achieved a minimal important difference in function from



Whittaker SL, Taylor NF, Hill KD, Ekegren CL, Brusco NK. (2021) Self-managed occupational therapy and physiotherapy for adults receiving inpatient rehabilitation ('My Therapy'): protocol for a mixed-methods process evaluation. BMC Health Serv Res. 21(1):810. doi: 10.1186/s12913-021-06463-8.

Brusco NK, Ekegren CL, Taylor NF, Hill KD, Lee AL, Somerville L, Lannin NA, Wade D, Abdelmotaleb R, Callaway L, Whittaker SL, Morris ME.Self-managed occupational therapy and physiotherapy for adults receiving inpatient rehabilitation ('My Therapy'): protocol for a stepped-wedge cluster randomised trial. BMC Health Serv Res. 21(1):811. doi: 10.1186/s12913-021-06462-9.



admission to discharge, two patients receiving My Therapy achieved the same improvement in function. The benefits were achieved without additional staff, adverse events or safety concerns.

The pilot study has now expanded to a NHMRC Partnership Grant led by Dr Brusco, with almost \$1 million in funding across Alfred Health, Cabrini Health, Eastern Health, Healthscope, and Monash and La Trobe Universities. The NHMRC Partnership Grant will evaluate scaled up implementation of the My Therapy program, with respect to effectiveness, cost effectiveness and factors influencing implementation, across inpatient rehabilitation wards in the public and private partner healthcare organisations. The project will couple knowledge generation and knowledge translation with cost-effectiveness analyses.

Dr Brusco says My Therapy has the potential to influence national and international models of rehabilitation.

"By collaborating with clinicians and patient consumers, we can increase the dosage of rehabilitation. We expect this will help patients achieve a higher functional status by discharge, empower our patients and improve their ability to self-manage their health, as well as reduce the health service cost and rehabilitation length of stay."



## Infrastructure

-0

### CABRINI RESEARCH TEAM

Professor Gary Richardson OAM Professor Mohammad Asghari-Jafarabadi Dr Emma Baker Leesa Horrigan Donna Li Ioana Logan Bianca Noble Anne Spence

### CABRINI RESEARCH GOVERNANCE OFFICE

Deb Macdonald Michele Tonkin

### CABRINI RESEARCH HEALTH DATA MANAGEMENT

Justin Lang Mr Gilbert Shardey

### ACKNOWLEDGEMENT TO STAFF WHO HAVE LEFT (2021-22)

Jacky Fernandes Sharon Guo Luka Keighley Karen Oliva Associate Professor Wei Wang

> Right: Mr Peter Gregory, breast surgeon and Associate Investigator with the Translational Research Program, Cabrini Monash University Department of Medical Oncology.





## Cabrini Research Governance

### PROJECTS APPROVED 1 JULY 2021 TO 30 JUNE 2022

### ALLIED HEALTH

Project title	Principal investigator
Investigating malnutrition in Victorian cancer services: Malnutrition prevalence study 2022	Ms Bree Voegt
Medication education survey for physiotherapists in Victoria	Mr Robert Wojnar
The rate of appropriate venous thromboembolism prophylaxis prescribing for newly admitted patients in a single tertiary hospital	Mr Robert Wojnar

### BRAIN / NEUROSURGERY

Project title	Principal investigator
Preoperative HbA1c levels and postoperative outcomes in neurosurgery - Pilot study	Prof Gavin Davis
A multi-centre, prospective trial exploring the use of neuronal biomarkers to identify the ideal location to implant and apply Deep Brain Stimulation (DBS) in the treatment of Parkinson's disease [ADEPT DBS][Bl2021A]	A/Prof Wesley Thevathasan
A clinical feasibility study evaluating the BiRD at quantifying motor symptoms in people with Parkinson's disease [BiRD-001]	A/Prof Wesley Thevathasan
BRAIN: Brain Registry Australia: Innovation and traNslation	Dr Ron Freilich

### CANCER

Project title	Principal investigator
To determine whether menopausal status is a predictor for toxicities that result in a change in or cessation of endocrine treatment in the setting of estrogen receptor positive, early breast cancer	Dr Michelle White
A phase 1, open-label, dose-escalation and dose-expansion study evaluating the safety, tolerability, pharmacokinetics, pharmacodynamics, and preliminary efficacy of D3S-001 monotherapy in subjects with advanced solid tumours with a KRAS p.G12C mutation [D3S-001-100]	Prof Gary Richardson
A phase 3, randomised, controlled, multicentre, open-label study to compare Tivozanib in combination with Nivolumab to Tivozanib monotherapy in subjects with renal cell carcinoma who have progressed following one or two lines of therapy where one line has an immune checkpoint inhibitor [TiNivo-2][AV-951-20-304]	Prof Mark Frydenberg
A phase 1/2, first-in-human, open-label, multicentre study evaluating the safety, tolerability, pharmacokinetics and efficacy of a trispecific EGFR/cMET/cMET antibody GB263T in subjects with advanced non-small cell lung cancer (NSCLC) and other solid tumors [GB263T-FIH001]	Prof Gary Richardson
A phase 1/2, first-in-human, open-label, dose-escalation study of TAK-280 in patients with unresectable locally advanced or metastatic cancer [TAK-280-1501]	Prof Gary Richardson
A multicentre, parallel arm, open-label trial of frontline R-CHOP/Pola-RCHP and glofitamab in younger, higher risk patients with diffuse large B cell lymphoma (DLBCL)[COALITION]	Dr Kirsten Herbert
The impact of cigarette smoking on colorectal cancer surgery pathology, perioperative and longterm cancer outcomes	Dr Lauren Cohen
A phase 1 study of SRF617 in patients with advanced solid tumours [SRF617-101]	Prof Gary Richardson

### PROJECTS APPROVED 1 JULY 2021 TO 30 JUNE 2022

### CANCER

#### Project title

A multicentre, open-label, phase I dose escalation study to evalua pharmacokinetics and preliminary anti-tumour activity of YH002 with advanced solid tumours [YH002004]

A phase I/II, open-label, multicentre study evaluating the safety, t efficacy of GB261 in patients with relapsed or refractory B-cell nor lymphocytic leukaemia [GB261-001]

A phase I/II, first-in-human (FIH), open-label, dose escalation and tolerability, pharmacokinetics and preliminary efficacy of LM-108 in combination with an anti-PD-1 antibody in subjects with advance of the statement of the st

Understanding pathways to bowel cancer early diagnosis and trea [UPBEAT 50]

Phase 1-2 study investigating, safety, tolerability, pharmacokinetic of Anti-TIM-3 monoclonal antibody BGB-A425 in combination with Tislelizumab in patients with advanced solid tumours [BGB-900-10

A first in human phase 1/2 open-label, multicentre, dose escalatio S095012 in patients with solid tumours [CL1-95012-001]

A phase 1 / 2 study of HLX301, a recombinant humanised anti-PDL patients with locally advanced or metastatic solid tumours [HLX30]

#### Lymphoma and Related Diseases Registry [LaRDR]

An ascending single and multiple dose study of the safety, tolerab activity of once-daily oral treatment with EO1001 in patients with a

A phase 2, single arm study of Mirvetuximab Soravtansine in recur epithelial ovarian, primary peritoneal, or fallopian tube cancers wi [IMGN853-0419] [PICCOLO]

An open-label, multicentre, phase 2 study to evaluate the efficacy Lenvatinib in combination with Belzutifan in multiple solid tumour

KRAS: Prevalence and clinical outcomes of KRASG12C mutated adv

A first-in-human phase 1 study of NL-201 in patients with relapsed

#### Cabrini lung cancer database

A phase III, open label, randomised, 3-arm, multi-centre study of 9 Sunitinib and Savolitinib plus Durvalumab versus Durvalumab mor MET driven, unresectable and locally advanced or metastatic pape [D5086C00001] [SAMETA]

A multi-centre, single-arm and open-label phase Ib/II study explo pharmacokinetics and efficacy of GFH018 in combination with To with advanced solid tumours [GFH018X0201]

A phase 1/2a open label, dose escalation and expansion study of A alone or in combination with immune checkpoint inhibitor in pati [MDNA11-01][ABILITY]

Phase 1b/2a study investigating ATX101 in combination with platin fallopian tube and primary peritoneal cancer [ATX101-03]

	Principal investigator
ate the safety, tolerability, in combination with YH001 in subjects	Prof Gary Richardson
olerability, pharmacokinetics and n-Hodgkin lymphoma and chronic	A/Prof Melita Kenealy
d expansion study to evaluate the safety, (an Anti-CCR8 mAb) as a single agent or ced solid tumours [LM108-01-101]	Prof Gary Richardson
atment - comparing under vs over 50s	Prof Paul McMurrick
cs and preliminary antitumour activity h anti-PD-1 monoclonal antibody 02]	Prof Gary Richardson
on and expansion study of PRS-344/	Prof Gary Richardson
.1 and anti-TIGIT bispecific antibody, in 01-001]	Prof Gary Richardson
	A/Prof Melita Kenealy
oility, pharmacokinetics and anti-tumour advanced cancer [EOHC-1001-01]	Prof Gary Richardson
rrent platinum-sensitive, high grade ith high folate receptor alpha expression	Prof Gary Richardson
/ and safety of Pembrolizumab plus rs [MK-6482-016]	Dr Lucy Gately
vanced lung cancer patients in Australia	Dr Ben Markman
or refractory cancer [NL201- 101]	Prof Gary Richardson
	Prof Gary Richardson
Savolitinib plus Durvalumab versus notherapy in participants with illary renal cell carcinoma (PRCC)	Prof Mark Frydenberg
oring the safety/tolerability, ripalimab in the treatment of patients	Prof Gary Richardson
MDNA11, IL-2 superkine, administered ients with advanced solid tumours	Prof Gary Richardson
num based therapy in recurrent ovarian,	Prof Gary Richardson

### PROJECTS APPROVED 1 JULY 2021 TO 30 JUNE 2022

### CANCER

Project title	Principal investigator
Phase 3, randomised, open-label study to compare ociperlimab (BGB-A1217) plus Tislelizumab (BGB-A317) plus concurrent chemoradiotherapy (cCRT) followed by Ociperlimab plus Tislelizumab or Tislelizumab plus cCRT followed by Tislelizumab versus cCRT followed by Durvalumab in previously untreated, locally advanced, unresectable nonsmall cell lung cancer [BGB-A317-A1217-301 (AdvanTIG-301)]	Dr Ben Markman
Using polygenic risk modification to improve breast cancer prevention: The PRiMo trial	A/Prof Yoland Antill
A phase 1, multi-centre, open-label study to assess safety, tolerability, pharmacokinetics, and preliminary efficacy of BAT6021 as mono therapy or in combination with BAT1308 in patients with advanced solid tumours [BAT-6021-002-CR]	Dr Anis Hamid
Quality control survey for the BCCA	Dr Raymond Yap
A first-in-human, multicentre, open-label, phase I dose escalation study to evaluate the safety, tolerability and pharmacokinetics of YH004 as a single agent and combination with toripalimab in subjects with advanced solid tumours and relapsed or refractory non-Hodgkin lymphoma [YH004002]	Dr Anis Hamid
A randomised, double-blinded, placebo-controlled, multicentre, phase II study to evaluate Senaparib maintenance in mCRPC patients with homologous recombination repair gene alterations after docetaxel treatment [IMP4297-202]	Dr David Pook
Colorectal cancer in the under 50's: is it time to revisit the guidelines for screening?	Dr Simon Wilkins
A first-in-human, phase I/II, open-label study to evaluate the safety, tolerability, pharmacokinetics and preliminary antitumour activity of EMB-06 in patients with relapsed or refractory multiple myeloma [EMB06X101]	A/Prof Melita Kenealy
Patients that don't receive adjuvant chemotherapy for stage III colon cancer: are we making the right call?	Dr Christine Koulis
A phase 3, randomised, double-blind study of Trilaciclib or placebo in patients receiving first or second line Gemcitabine and Carboplatin chemotherapy for locally advanced unresectable or metastatic triple-negative breast cancer [G1T28-208] [PRESERVE 2]	A/Prof Yoland Antill
A phase I, first-in-human, multicentre, open-label study of RC118 for injection in patients with locally advanced unresectable/metastatic solid tumours [RC118-G001]	Prof Gary Richardson
A phase 3, randomised, double-blind, study of talazoparib with enzalutamide versus placebo with enzalutamide in men with DDR gene mutated metastatic castration-sensitive prostate cancer [TALAPRO-3] [C3441052]	Prof Mark Frydenberg
Phase 2 study evaluating the efficacy and safety of biomarker-driven therapies in patients with persistent or recurrent rare epithelial ovarian tumours [WO42178] [BOUQUET]	Prof Gary Richardson
A phase 1 first in human, multicentre, open-label study to determine the safety, tolerability, pharmacokinetics, and recommended phase 2 dose of CCX559 in subjects with solid tumours [CL001_559]	Prof Gary Richardson
A multicentre, randomised, double-blind, placebo-controlled study to assess the safety and preliminary efficacy of SIR1-365 in patients with chronic prostatitis / chronic pelvic pain syndrome [SIR365-AU-102]	Prof Mark Frydenberg
MOR208C310 - A phase 3, multicentre, randomised, double-blind, placebo-controlled trial comparing the efficacy and safety of tafasitamab plus lenalidomide in addition to R-CHOP versus R-CHOP in previously untreated, high-intermediate and high-risk patients with newly diagnosed diffuse large B-cell lymphoma (DLBCL)	A/Prof Melita Kenealy
A randomised, open-label phase 2 clinical trial of BMS-986012 in combination with carboplatin, etoposide, and nivolumab as first-line therapy in extensive stage small cell lung cancer [CA001- 050]	Dr Ben Markman
A phase 1, first in human, open-label dose escalation clinical trial to evaluate the safety, tolerability, pharmacokinetics and preliminary efficacy of LM-061 tablet in subjects with advanced tumours [LM061-01-102]	Prof Gary Richardson
Treatment trends and patterns of care of active surveillance in a Victorian cohort of men [GAP3]	Prof Mark Frydenberg

### PROJECTS APPROVED 1 JULY 2021 TO 30 JUNE 2022

#### CARDIAC

Project title	Principal investigator
Routine versus selective protamine administration to reduce bleeding in transcatheter aortic valve implantation [ACE PRO-TAVI]	A/Prof Dion Stub
IV iron for treatment of anaemia before cardiac surgery [ITACS]	Dr Mark Shulman
Dexamethasone for cardiac surgery trial: a registry based, novel practice preference, randomised design	Dr Mark Shulman
Catheter ablation versus medical rate control in atrial fibrillation with systolic heart failure and myocardial fibrosis – an MRI guided multi-centre randomised controlled trial (CAMERA-MRI II)	Prof Peter Kistler
The Australian New Zealand spontaneous coronary artery dissection registry [ANZ-SCAD]	Dr Swati Mukherjee
An evaluation of blood pressure pre and post echocardiogram in an adult population	Mr Joshua Sher

#### HEALTH INFORMATICS

Project title	Principal investigator
Review of documentation quality across episode of care in cases with delirium at Cabrini hospital	Dr David Rankin
Quarterly reporting: sensemaking and feedback	Dr David Rankin
Impact of COVID-19 on admissions to hospital	Dr David Rankin
How do physicians and surgeons make sense of clinical performance indicators derived from electronic health data?	Dr David Rankin
Correlation between infections, delirium, charlson score and falls	Dr David Rankin
Reconciliation of medication records	Dr David Rankin
Demographic profile of patients who raise complaints	Dr David Rankin
Review of the patients who developed urinary tract infections while in hospital	Dr David Rankin

### **INTENSIVE CARE**

Review of post operative pain in minimally invasive cardiac surgery sternotomy in Cabrini ICU

Oxygenation Terminology Study

Patient load sharing between two ICUs during a pandemic - includ

International point prevalence study of intensive care unit transfu

	Principal investigator
y as compared to traditional median	A/Prof Vineet Sarode
	A/Prof David Brewster
ding non COVID-19 overflow patients	A/Prof David Brewster
usion practices [InPUT study]	A/Prof David Brewster

### PROJECTS APPROVED 1 JULY 2021 TO 30 JUNE 2022

#### MUSCULOSKELETAL

Project title	Principal investigator
Implementation intervention to increase intake of rehabilitation-at-home following a primary elective total hip and knee replacement surgery at a private hospital - A randomised controlled trial	Dr Jason Wallis
Australian and New Zealand Hip Fracture Registry [ANZHFR]	A/Prof Marinis Pirpiris

#### NURSING

Project title	Principal investigator
Barriers and facilitators to nurses research involvement	Dr Lucille Kerr
What is regarded higher by qualified nurses undertaking postgraduate or graduate education, work- based learning or classroom-based education?	Mr Rick Peebles
The accuracy of coded hospital acquired complication data in identifying healthcare associated infections	A/Prof Philip Russo

### OTHER

Project title	Principal investigator
Vaginal stem cells: the missing link in vaginal reconstruction	A/Prof Anna Rosamilia
Most rejected x-ray images in a private hospital's general radiography department: retrospective learnings from common errors	Mr Kris Ockwell
Novel ocular biomarkers in diabetes	A/Prof R C Andrew Symons
A study to assess the genotype of subjects with diagnoses of ulcerative colitis or crohn's disease - The Prelude study	A/Prof Henry Debinski
A retrospective audit of 'code grey' emergency response calls at Cabrini Malvern	A/Prof Michael Rose
Make my values matter - Developing and testing of a values question prompt list for advanced cancer patients	A/Prof Natasha Michael
A randomised controlled single blinded multicentre trial of polyethylene glycol sealant to the staple line vs staple line alone in distal pancreatectomy [PEGDP-01]	A/Prof Charles Pilgrim
A phase 2 double-blind, randomised, placebo controlled study to evaluate the efficacy, safety and tolerability of PF-06823859 in adult subjects with dermatomyositis [C0251002]	Prof Stephen Hall
Evaluation and safety and efficacy of the IBE-814 intravitreal implant in patients with diabetic macular oedema and macular oedema due to retinal vein occlusion [RIPPLE-1]	A/Prof R C Andrew Symons
This is my story: Hope and human flourishing through workplace opportunities	A/Prof Natasha Michael
Psychocultural and practical factors related to Australian adults' comprehension and utilisation of overtesting and overdiagnosis information	Dr Tom Rozbroj

## Publications

### CABRINI MONASH UNIVERSITY DEPARTMENT OF MEDICAL ONCOLOGY

Afshar N, Dashti SG, Te Marvelde L, Blakely T, **Haydon A**, White VM, Emery JD, Bergin RJ, Whitfield K, Thomas RJS, Giles GG, Milne RL, English DR. (2021) Factors Explaining Socio-Economic Inequalities in Survival from Colon Cancer: A Causal Mediation Analysis. Cancer Epidemiol Biomarkers Prev 30(10):1807-1815.

Antill Y, Buchanan DD, Scott CL. (2022) Mismatch repair and clinical response to immune checkpoint inhibitors in endometrial cancer. Cancer 128(6):1157-1161.

Bakshi A, Riaz M, Orchard SG, Carr PR, Joshi AD, Cao Y, Rebello R, Nguyen-Dumont T, Southey MC, Millar JL, **Gately L**, Gibbs P, Ford LG, Parnes HL, Chan AT, McNeil JJ, Lacaze P. (2021) A Polygenic Risk Score Predicts Incident Prostate Cancer Risk in Older Men but Does Not Select for Clinically Significant Disease. Cancers (Basel) 13(22):5815. doi: 10.3390/cancers13225815.

Baumann FT, Reimer N, Gockeln T, Reike A, Hallek M, Ricci C, **Zopf EM**, Schmid D, Taaffe D, Newton RU, Galvao DA, Leitzmann M. (2021) Supervised pelvic floor muscle exercise is more effective than unsupervised pelvic floor muscle exercise at improving urinary incontinence in prostate cancer patients following radical prostatectomy - a systematic review and metaanalysis. Disabil Rehabil 1-12. doi: 10.1080/09638288.2021.1937717.

Bishop MR, **Dickinson M**, Purtill D, Barba P, Santoro A, Hamad N, Kato K, Sureda A, Greil R, Thieblemont C, Morschhauser F, Janz M, Flinn I, Rabitsch W, Kwong YL, Kersten MJ, Minnema MC, Holte H, Chan EHL, Martinez-Lopez J, Müller AMS, Maziarz RT, McGuirk JP, Bachy E, Le Gouill S, Dreyling M, Harigae H, Bond D, Andreadis C, McSweeney P, Kharfan-Dabaja M, Newsome S, Degtyarev E, Awasthi R, Del Corral C, Andreola G, Masood A, Schuster SJ, Jäger U, Borchmann P, Westin JR. (2022) Second-Line Tisagenlecleucel or Standard Care in Aggressive B-Cell Lymphoma. N Engl J Med 386(7):629-639. doi: 10.1056/ NEJMoa2116596.

**Bland KA**, Kouw IWK, van Loon LJC, **Zopf EM**, Fairman CM. (2022) Exercise-Based Interventions to Counteract Skeletal Muscle Mass Loss in People with Cancer: Can We Overcome the Odds? Sports Med 52(5):1009-1027. doi: 10.1007/s40279-021-01638-z.

**Bland KA**, Krishnasamy M, Parr EB, Mulder S, Martin P, van Loon LJC, Cormie P, Michael N, **Zopf EM**. (2022) "I want to get myself as fit as I can and not die just yet" - Perceptions of exercise in people with advanced cancer and cachexia: a qualitative study. BMC Palliat Care 21(1):75. doi: 10.1186/s12904-022-00948-x.

**Bland KA**, Neil-Sztramko SE, Zadravec K, Medysky ME, Kong J, Winters-Stone KM, Campbell KL. (2021) Attention to principles of exercise training: an updated systematic review of randomized controlled trials in cancers other than breast and prostate. BMC Cancer 21(1):1179. doi: 10.1186/s12885-021-08701-y.

**Bland KA**, Neil-Sztramko SE, Zadravec K, Medysky ME, Kong J, Winters-Stone KM, Campbell KL. (2022) Correction to: Attention to principles of exercise training: an updated systematic review of randomized controlled trials in cancers other than breast and prostate. BMC Cancer 22(1):182. doi: 10.1186/s12885-021-09022-w.

Bröske AE, Korfi K, Belousov A, Wilson S, Ooi CH, Bolen CR, Canamero M, Alcaide EG, James I, Piccione EC, Carlile DJ, Dimier N, Umaña P, Bacac M, Weisser M, **Dickinson M**. (2022) Pharmacodynamics and molecular correlates of response to glofitamab in relapsed/refractory non-Hodgkin lymphoma. Blood Adv 6(3):1025-1037. doi: 10.1182/ bloodadvances.2021005954.

Caldwell I, Byrne D, Lade S, Akhurst T, Minson A, **Dickinson M**, Thompson E, Scott C, Blombery P. (2021) Response to everolimus in a patient with refractory HGBL-NOS harboring multiple genomic aberrations in PTEN. Leuk Lymphoma 62(14):3521-3525. doi: 10.1080/10428194.2021.1965139.

Chee L, Ritchie D, Ludford-Menting M, Ripley J, Chung J, Park D, Norton S, **Kenealy M**, Koldej R. (2022) Dysregulation of immune cell and cytokine signalling correlates with clinical outcomes in myelodysplastic syndrome (MDS). Eur J Haematol 108(4):342-353. doi: 10.1111/ejh.13742.

Cherk MH, Nadebaum DP, Barber TW, Beech P, **Haydon A**, Yap KS. (2022) 18 F-FDG PET/CT features of immune-related adverse events and pitfalls following immunotherapy. J Med Imaging Radiat Oncol 66(4):483-494. doi: 10.1111/1754-9485.13390.

Chew NJ, Lim Kam Sian TCC, Nguyen EV, Shin SY, Yang J, Hui MN, Deng N, McLean CA, Welm AL, Lim E, **Gregory P**, Nottle T, **Lang T, Vereker M, Richardson G**, Kerr G, Micati D, Jardé T, Abud HE, Lee RS, Swarbrick A, Daly RJ. (2021) Evaluation of FGFR targeting in breast cancer through interrogation of patientderived models. Breast Cancer Res 23(1):82.

Chong CY, Jalali A, Wong HL, Loft M, Wong R, Lee M, **Gately L**, Hong W, **Shapiro J**, Kosmider S, Tie J, Ananda S, Yeung JM, Ma B, Burge M, Jennens R, Tran B, Lee B, Lim L, Dean A, Nott L, Gibbs P. (2022) Impact of the evolution in RAS mutation analysis in Australian patients with metastatic colorectal cancer. Asia Pac J Clin Oncol doi: 10.1111/ajco.13728.

Cochrane T, Campbell BA, Gangatharan SA, Latimer M, Khor R, Christie DRH, Gilbertson M, Ratnasingam S, Palfreyman E, Lee HP, Trotman J, Hertzberg M, **Dickinson M**. (2021) Assessment and management of newly diagnosed classical Hodgkin lymphoma: a consensus practice statement from the Australasian Lymphoma Alliance. Intern Med J 51(12):2119-2128. doi: 10.1111/imj.15503.

Czosnek L, Rosenbaum S, Rankin NM, **Zopf EM**, Cormie P, Herbert B, Richards J. (2022) Implementation of physical activity interventions in a community-based youth mental healthcare service: A case study of context, strategies, and outcomes. Early Interv Psychiatry doi: 10.1111/eip.13324.

da Silva IP, Ahmed T, Reijers ILM, Warner AB, Patrinely JR, Serra-Bellver P, Allayous C, Mangana J, Zimmer L, Trojaniello C, Klein O, Gerard CL, Michielin O, **Haydon A**, Ascierto PA, Carlino MS,



Lebbe C, Lorigan P, Johnson DB, Sandhu S, Lo SN, Menzies AM, Long GV. (2021) Ipilimumab versus ipilimumab plus anti-PD-1 for metastatic melanoma - Authors' reply. Lancet Oncol 22(8):e343-e344.

Degeling K, Corcoran NM, Pereira-Salgado A, Hamid AA, Siva S, IJzerman MJ. (2021) Lifetime Health and Economic Outcomes of Active Surveillance, Radical Prostatectomy, and Radiotherapy for Favorable-Risk Localized Prostate Cancer. Value Health 24(12):1737-1745.

Dickinson M. (2022) Challenges in the development of bispecific antibodies for non-Hodgkin lymphoma. Lancet Haematol 9(5):e314-e315. doi: 10.1016/S2352-3026(22)00104-1.

Dickinson M, Briones J, Herrera AF, González-Barca E, Ghosh N, Cordoba R, Rutherford SC, Bournazou E, Labriola-Tompkins E, Franjkovic I, Chesne E, Brouwer-Visser J, Lechner K, Brennan B, Nüesch E, DeMario M, Rüttinger D, Kornacker M, Hutchings M. (2021) Phase 1b study of the BET protein inhibitor RO6870810 with venetoclax and rituximab in patients with diffuse large B-cell lymphoma. Blood Adv 5(22):4762-4770. doi: 10.1182/ bloodadvances.2021004619.

Dinh P, Graham JD, Elder EN, Kabir M, Doan TB, French J, Meybodi F, Hui R, Wilcken NR, Harnett PR, Hsu J, Stuart KE, Wang T, Ahern V, Brennan M, Fox SB, Dear RF, Lim E, White M, Mann GB, Pathmanathan N. (2022) Impact of the EndoPredict genomic assay on treatment decisions for oestrogen receptorpositive early breast cancer patients: benefits of physician selective testing. Breast Cancer Res Treat 191(3):501-511. doi: 10.1007/s10549-021-06456-5.

Dunn C, Gately L, Gibbs P. (2021) Drinking from the firehose - A clinician's perspective on the challenges of delivering biomarker-driven care in routine practice. Eur J Cancer 157:301-305. doi: 10.1016/j.ejca.2021.08.037.

Dunn C, Gately L, Gibbs P. (2022) Comment on Timing of Surgery For Patients With Rectal Cancers Not Responding to Preoperative Chemoradiation. JAMA Surg 157(6):548-549. doi: 10.1001/jamasurg.2021.7590.

Febrina F, Triyoga IF, White M, Marino JL, Peate M. (2022) Efficacy of interventions to manage sexual dysfunction in women with cancer: a systematic review. Menopause 29(5):609-626. doi: 10.1097/GME.000000000001953.

Foo T, Goldstein D, Segelov E, Shapiro J, Pavlakis N, Desai J, Yip D, Zalcberg J, Price TJ, Nagrial A, Chantrill L, Burge M, Karapetis CS, Tebbutt N, Roy AC. (2022) The Management of Unresectable, Advanced Gastrointestinal Stromal Tumours. Target Oncol 17(2):95-110. doi: 10.1007/s11523-022-00869-y.

Fowler NH, **Dickinson M**, Dreyling M, Martinez-Lopez J, Kolstad A, Butler J, Ghosh M, Popplewell L, Chavez JC, Bachy E, Kato K, Harigae H, Kersten MJ, Andreadis C, Riedell PA, Ho PJ, Pérez-Simón JA, Chen AI, Nastoupil LJ, von Tresckow B, Ferreri AJM, Teshima T, Patten PEM, McGuirk JP, Petzer AL, Offner F, Viardot A, Zinzani PL, Malladi R, Zia A, Awasthi R, Masood A, Anak O,

Schuster SJ, Thieblemont C. (2022) Tisagenlecleucel in adult relapsed or refractory follicular lymphoma: the phase 2 ELARA trial. Nat Med 28(2):325-332. doi: 10.1038/s41591-021-01622-0.

Fujihara KM, Corrales Benitez M, Cabalag CS, Zhang BZ, Ko HS, Liu DS, Simpson KJ, Haupt Y, Lipton L, Haupt S, Phillips WA, Clemons NJ. (2021) SLC7A11 Is a Superior Determinant of APR-246 (Eprenetapopt) Response than TP53 Mutation Status. Mol Cancer Ther 20(10):1858-1867. doi: 10.1158/1535-7163.MCT-21-0067.

Gately L, Drummond K, Rosenthal M, Harrup R, Dowling A, Gogos A, Lwin Z, Collins I, Campbell D, Ahern E, Phillips C, Gan HK, Bennett I, Sieber OM, Gibbs P. (2022) Beyond standard data collection - the promise and potential of BRAIN (Brain tumour Registry Australia INnovation and translation registry). BMC Cancer 22(1):604. doi: 10.1186/s12885-022-09700-3.

Gaughran G, Zalcberg J, Hawkins CA, Shackleton M, Voskoboynik M. (2021) Improving regional access: Phase 1 teletrials in the era of COVID-19. Asia Pac J Clin Oncol 17(4):416-417. doi: 10.1111/ajco.13558.

Gould C, Lickiss J, Kankanige Y, Yerneni S, Lade S, Gandhi MK, Chin C, Yannakou CK, Villa D, Slack GW, Markham JF, Tam CS, Nelson N, Seymour JF, **Dickinson M**, Neeson PJ, Westerman D, Blombery P. (2021) Characterisation of immune checkpoints in Richter syndrome identifies LAG3 as a potential therapeutic target. Br J Haematol 195(1):113-118. doi: 10.1111/bjh.17789.

Gregory G, Das Gupta K, Meiser B, Barlow-Stewart K, Geelan-Small P, Kaur R, Scheepers-Joynt M, McInerny S, Taylor S, Antill Y, Salmon L, Smyth C, Young MA, James PA, Yanes T. (2022) Polygenic risk in familial breast cancer: Changing the dynamics of communicating genetic risk. J Genet Couns 31(1):120-129.

Halle BR, Betof Warner A, Zaman FY, Haydon A, Bhave P, Dewan AK, Ye F, Irlmeier R, Mehta P, Kurtansky NR, Lacouture ME, Hassel JC, Choi JS, Sosman JA, Chandra S, Otto TS, Sullivan R, Mooradian MJ, Chen ST, Dimitriou F, Long G, Carlino M, Menzies A, Johnson DB, Rotemberg VM. (2021) Immune checkpoint inhibitors in patients with pre-existing psoriasis: safety and efficacy. J Immunother Cancer 9(10):e003066.

Hepner A, Atkinson VG, Larkin J, Burrell RA, Carlino MS, Johnson DB, Zimmer L, Tsai KK, Klein O, Lo SN, Haydon A, Bhave P, Lyle M, Pallan L, Pires da Silva I, Gerard C, Michielin O, Long GV, Menzies AM. (2021) Re-induction ipilimumab following acquired resistance to combination ipilimumab and anti-PD-1 therapy. Eur J Cancer 153:213-222.

Kelly R, Anton A, Wong S, Shapiro J, Weickhardt A, Azad A, Kwan EM, Spain L, Muthusamy A, Torres J, Parente P, Parnis F, Goh J, Joshua A, Pook D, Baenziger O, Gibbs P, Tran B. (2021) Realworld use of first-generation antiandrogens: impact on patient outcomes and subsequent therapies in metastatic castrationresistant prostate cancer. BJU Int 128 Suppl 1:18-26. doi: 10.1111/ bju.15364.

Kennedy OJ, Kicinski M, Valpione S, Gandini S, Suciu S, Blank CU, Long GV, Atkinson VG, Dalle S, Haydon AM, Meshcheryakov

A, Khattak A, Carlino MS, Sandhu S, Larkin J, Puig S, Ascierto PA, Rutkowski P, Schadendorf D, Koornstra R, Hernandez-Aya L, Di Giacomo AM, van den Eertwegh AJM, Grob JJ, Gutzmer R, Jamal R, van Akkooi ACJ, Robert C, Eggermont AMM, Lorigan P, Mandala M. (2022) Prognostic and predictive value of -blockers in the EORTC 1325/KEYNOTE-054 phase III trial of pembrolizumab versus placebo in resected high-risk stage III melanoma. Eur J Cancer 165:97-112. doi: 10.1016/j. ejca.2022.01.017.

Khan NN, Maharaj A, Evans S, Pilgrim C, Zalcberg J, Brown W, Cashin P, Croagh D, Michael N, Shapiro J, White K, Ioannou L. (2022) A qualitative investigation of the supportive care experiences of people living with pancreatic and oesophagogastric cancer. BMC Health Serv Res 22(1):213. doi: 10.1186/s12913-022-07625-y.

Kim SY, Kissane DW, Richardson G, Senior J, Morgan J, Gregory P, Birks S, Ooi C, Lipton L, Antill Y, Vereker M, Michael N, Bobevski I. (2022) The role of depression and other psychological factors in work ability among breast cancer survivors in Australia. Psychooncology 31(2):167-175.

Klein O, Kee D, Gao B, Markman B, da Gama Duarte J, Quigley L, Jackett L, Linklater R, Strickland A, Scott C, Mileshkin L, Palmer J, Carlino M, Behren A, Cebon J. (2021) Combination immunotherapy with nivolumab and ipilimumab in patients with rare gynecological malignancies: results of the CA209-538 clinical trial. J Immunother Cancer 9(11):e003156. doi: 10.1136/ jitc-2021-003156.

Loehr A, Patnaik A, Campbell D, Shapiro J, Bryce AH, McDermott R, Sautois B, Vogelzang NJ, Bambury RM, Voog E, Zhang J, Piulats JM, Hussain A, Ryan CJ, Merseburger AS, Daugaard G, Lacaze P, Bakshi A, Riaz M, Orchard SG, Tiller J, Neumann JT, Carr PR, Joshi AD, Cao Y, Warner ET, Manning A, Nguyen-Dumont Heidenreich A, Fizazi K, Higano CS, Krieger LE, Sternberg CN, T, Southey MC, Milne RL, Ford L, Sebra R, Schadt E, Gately L, Watkins SP, Despain D, Simmons AD, Dowson M, Golsorkhi Gibbs P, Thompson BA, Macrae FA, James P, Winship I, McLean T, Chowdhury S, Abida W. (2021) Response to Rucaparib in C, Zalcberg JR, Woods RL, Chan AT, Murray AM, McNeil JJ. (2021) BRCA-Mutant Metastatic Castration-Resistant Prostate Cancer Identified by Genomic Testing in the TRITON2 Study. Clin Cancer Genomic Risk Prediction for Breast Cancer in Older Women. Cancers (Basel) 13(14):3533. doi: 10.3390/cancers13143533. Res 27(24):6677-6686. doi: 10.1158/1078-0432.CCR-21-2199.

Lang T, Jaboury S, West A, O'Sullivan J, Seletto K, Wilson L, Loi S, Karapetis CS, McCarthy N, Oakman C, Redfern A, White Gleisner E, Richardson G. (2022) Is There a Relationship Between M, Khasraw M, Doval DC, Gore V, Alam M, Binko J, Lu DR, Kim Frequency of Port-Care Maintenance and Related Complications S, Boyle F. (2021) Palbociclib plus letrozole as treatment for in Patients With Cancer? JCO Oncol Pract 7:OP2200060. postmenopausal women with hormone receptor-positive/ human epidermal growth factor receptor 2-negative Lapidus AH, Anderson MA, Harrison SJ, Dickinson M, Kalincik advanced breast cancer for whom letrozole therapy is deemed appropriate: An expanded access study in Australia and India. Asia Pac J Clin Oncol doi: 10.1111/ajco.13653.

T, Lasocki A. (2022) Neuroimaging findings in immune effector cell associated neurotoxicity syndrome after chimeric antigen receptor T-cell therapy. Leuk Lymphoma 1-11. doi:

10.1080/10428194.2022.2074990. Luke JJ, Rutkowski P, Queirolo P, Del Vecchio M, Mackiewicz J, Chiarion-Sileni V, de la Cruz Merino L, Khattak MA, Schadendorf Lawrence MG, Porter LH, Choo N, Pook D, Grummet JP, Pezaro D, Long GV, Ascierto PA, Mandala M, De Galitiis F, Haydon A, CJ, Sandhu S, Ramm S, Luu J, Bakshi A, Goode DL, Sanij E, Dummer R, Grob JJ, Robert C, Carlino MS, Mohr P, Poklepovic A, Pearson RB, Hannan RD, Simpson KJ, Taylor RA, Risbridger GP, Sondak VK, Scolver RA, Kirkwood JM, Chen K, Diede SJ, Ahsan Furic L. (2021) CX-5461 Sensitizes DNA Damage Repair-proficient S, Ibrahim N, Eggermont AMM; KEYNOTE-716 Investigators. Castrate-resistant Prostate Cancer to PARP Inhibition. Mol (2022) Pembrolizumab versus placebo as adjuvant therapy in Cancer Ther 20(11):2140-2150. doi: 10.1158/1535-7163.MCT-20completely resected stage IIB or IIC melanoma (KEYNOTE-716): a 0932 randomised, double-blind, phase 3 trial. Lancet 399(10336):1718-Lew TE, Cliff ERS, **Dickinson M**, Tam CS, Seymour JF, Blombery 1729

P, Bajel A, Ritchie D, Khot A. (2021) T-cell replete allogeneic



Lickliter JD, Voskoboynik M, Mileshkin L, Gan HK, Kichenadasse G, Zhang K, Zhang M, Tang Z, Millward M. (2022) Phase 1A/1B dose-escalation and -expansion study to evaluate the safety, pharmacokinetics, food effects and antitumor activity of pamiparib in advanced solid tumours. Br J Cancer 126(4):576-585. doi: 10.1038/s41416-021-01632-2.

Lickliter JD, Voskoboynik M, Mileshkin L, Gan HK, Kichenadasse G, Zhang K, Zhang M, Tang Z, Millward M. (2022) Correction: Phase 1A/1B dose-escalation and -expansion study to evaluate the safety, pharmacokinetics, food effects and antitumor activity of pamiparib in advanced solid tumours. Br J Cancer 126(2):310. doi: 10.1038/s41416-021-01671-9.

Locke FL, Miklos DB, Jacobson CA, Perales MA, Kersten MJ, Oluwole OO, Ghobadi A, Rapoport AP, McGuirk J, Pagel JM, Muñoz J, Faroog U, van Meerten T, Reagan PM, Sureda A, Flinn IW, Vandenberghe P, Song KW, Dickinson M, Minnema MC, Riedell PA, Leslie LA, Chaganti S, Yang Y, Filosto S, Shah J, Schupp M, To C, Cheng P, Gordon LI, Westin JR; All ZUMA-7 Investigators and Contributing Kite Members. (2022) Axicabtagene Ciloleucel as Second-Line Therapy for Large B-Cell Lymphoma. N Engl J Med 386(7):640-654. doi: 10.1056/NEJMoa2116133.



Maharaj AD, Evans SM, Ioannou LJ, Croagh D, Earnest A, Holland JF, Pilgrim CHC, Neale RE, Goldstein D, Kench JG, Merrett ND, White K, Burmeister EA, Evans PM, Hayes TM, Houli N, Knowles B, Leong T, Nikfarjam M, Philip J, Quinn M, **Shapiro J**, Smith MD, Spillane JB, Wong R, Zalcberg JR. (2022) The association between guality care and outcomes for a real-world population of Australian patients diagnosed with pancreatic cancer. HPB (Oxford) 24(6):950-962. doi: 10.1016/j.hpb.2021.11.005.

Mathai VK, Aung SY, Wong V, Dunn C, **Shapiro J**, Jalali A, Wong R, Lee M, Tie J, Ananda S, Kosmider S, Lim SH, Caird S, Burge M, Dean A, Gibbs P, Nott L. (2021) Treatment and Outcomes of Oligometastatic Colorectal Cancer Limited to Lymph Node Metastases. Clin Colorectal Cancer 20(4):e233-e239. doi: 10.1016/j.clcc.2021.06.003.

McLean LS, Faisal W, Parakh S, Kao SC, Lewis CR, Chin MT, Voskoboynik M, Itchins MJ, Jennens RR, Broad AR, Morris TA, Solomon BJ. (2021) Standard-Dose Osimertinib in EGFR-Mutated Non-Small-Cell Lung Adenocarcinoma With Leptomeningeal Disease. JCO Precis Oncol 5:561-568. doi: 10.1200/PO.20.00464.

McQuilten ZK, Busija L, Seymour JF, Stanworth S, Wood EM, Kenealy M, Weinkove R; Australasian Leukaemia and Lymphoma Group (ALLG). (2022) Hemoglobin is a key determinant of quality of life before and during azacitidinebased therapy for myelodysplasia and low blast count acute myeloid leukemia. Leuk Lymphoma 63(3):676-683. doi: 10.1080/10428194.2021.2012664.

Mendis S, Hong W, Ananda S, Faragher I, Jones I, Croxford M, Steel M, Jalali A, Gard G, To YH, Lee M, Kosmider S, Wong R, Tie J, Gibbs P. (2022) Biology and Clinical Implications of Fecal Occult Blood Test Screen-Detected Colorectal Cancer. JNCI Cancer Spectr 6(1):pkab100. doi: 10.1093/jncics/pkab100.

Menon S, Davies A, Frentzas S, Hawkins CA, Segelov E, Day D, Markman B. (2022) Recruitment, outcomes, and toxicity trends in phase I oncology trials: Six-year experience in a large institution. Cancer Rep (Hoboken) 5(2):e1465. doi: 10.1002/ спг2.1465.

Minson A, Dickinson M. (2021) Glofitamab CD20-TCB bispecific antibody. Leuk Lymphoma 62(13):3098-3108. doi: 10.1080/10428194.2021.1953016.

Minson A, Tam C, Dickinson M, Seymour JF. (2022) Targeted Agents in the Treatment of Indolent B-Cell Non-Hodgkin Lymphomas. Cancers (Basel) 14(5):1276. doi: 10.3390/ cancers14051276.

Minson A, Hofman M, Dickinson M. (2022) A PET in a time of need: toward early PET-adapted therapy in DLBCL in first relapse. Leuk Lymphoma 63(1):1-4. doi: 10.1080/10428194.2021.2015345.

Mweempwa A, Xu H, Vissers JHA, Tothill RW, Pattison AD, Fellowes AP, Thomas DM, Richardson G, Hicks RJ, Grimmond SM, Fox SB, Luen SJ, Desai J, Solomon BJ. (2021) Novel RET Fusion RET-SEPTIN9 Predicts Response to Selective RET Inhibition With Selpercatinib in Malignant Pheochromocytoma. JCO Precis Oncol 5:1160-1165.

Neelapu SS, Dickinson M, Munoz J, Ulrickson ML, Thieblemont C, Oluwole OO, Herrera AF, Ujjani CS, Lin Y, Riedell PA, Kekre N, de Vos S, Lui C, Milletti F, Dong J, Xu H, Chavez JC. (2022) Axicabtagene ciloleucel as first-line therapy in high-risk large B-cell lymphoma: the phase 2 ZUMA-12 trial. Nat Med 28(4):735-742. doi: 10.1038/s41591-022-01731-4.

Nguyen M, Segelov E, Goldstein D, Pavlakis N, Shapiro J, Price TJ, Nagrial A, Chantrill L, Leong T, Chen J, Burge M, Karapetis CS, Chau I, Lordick F, Renouf D, Tebbutt N, Roy AC. (2022) Update on optimal management for pancreatic cancer: expert perspectives from members of the Australasian Gastrointestinal Trials Group (AGITG) with invited international faculty. Expert Rev Anticancer Ther 22(1):39-51. doi: 10.1080/14737140.2022.2002689.

Rattner JI, Kopciuk KA, Vogel HJ, Tang PA, Shapiro JD, Tu D, Jonker DJ, Siu LL, O'Callaghan CJ, Bathe OF. (2022) Early detection of treatment futility in patients with metastatic colorectal cancer. Oncotarget 13:61-72. doi: 10.18632/ oncotarget.28165.

Reimer N, Zopf EM, Böwe R, Baumann FT. (2021) Effects of Exercise on Sexual Dysfunction in Patients With Prostate Cancer - A Systematic Review. J Sex Med 18(11):1899-1914. doi: 10.1016/j. jsxm.2021.09.001.

Risbridger GP, Clark AK, Porter LH, Toivanen R, Bakshi A, Lister NL, **Pook D**, Pezaro CJ, Sandhu S, Keerthikumar S, Quezada Urban R, Papargiris M, Kraska J, Madsen HB, Wang H, Richards MG, Niranjan B, O'Dea S, Teng L, Wheelahan W, Li Z, Choo N, Ouyang JF, Thorne H, Devereux L, Hicks RJ, Sengupta S, Harewood L, Iddawala M, Azad AA, Goad J, Grummet J, Kourambas J, Kwan EM, Moon D, Murphy DG, Pedersen J, Clouston D, Norden S, Ryan A, Furic L, Goode DL, Frydenberg M, Lawrence MG, Taylor RA. (2021) The MURAL collection of prostate cancer patient-derived xenografts enables discovery through preclinical models of uro-oncology. Nat Commun 12(1):5049. doi: 10.1038/s41467-021-25175-5.

Rottey S, Clarke J, Aung K, Machiels JP, Markman B, Heinhuis KM, Millward M, Lolkema M, Patel SP, de Souza P, Duca M, Curigliano G, Santoro A, Koyama T, Brown M, Vezina H, He C, Chu QS. (2022) Phase I/IIa Trial of BMS-986148, an Antimesothelin Antibody-drug Conjugate, Alone or in Combination with Nivolumab in Patients with Advanced Solid Tumors. Clin Cancer Res 28(1):95-105. doi: 10.1158/1078-0432.CCR-21-1181.

Schulz GB, Locke JA, Campbell KL, Bland KA, Van Patten CL, Black PC, Goldenberg SL, Flannigan R. (2022) Taking Advantage of the Teachable Moment at Initial Diagnosis of Prostate Cancer-Results of a Pilot Randomized Controlled Trial of Supervised Exercise Training. Cancer Nurs 45(3):E680-E688. doi: 10.1097/ NCC.000000000001013.

Singh B, Zopf EM, Howden EJ. (2022) Effect and feasibility of wearable physical activity trackers and pedometers for increasing physical activity and improving health outcomes in cancer survivors: A systematic review and meta-analysis. J Sport Health Sci 11(2):184-193. doi: 10.1016/j.jshs.2021.07.008.

Small SD, Bland KA, Rickard JN, Kirkham AA. (2022) Exercisebased Multimodal Programming: A Treatment Gap for Older Adults with Advanced Cancer. Oncologist 27(1):1-3. doi: 10.1093/ oncolo/ovab009.

Smithers BM, Saw RPM, Gyorki DE, Martin RCW, Atkinson V, Haydon A, Roberts-Thomson R, Thompson JF. (2021) Contemporary management of locoregionally advanced melanoma in Australia and New Zealand and the role of adjuvant systemic therapy. ANZ J Surg 91 Suppl 2:3-13.

Stewart R, White M, Tan J, Siva S, Karroum L, David S. (2021) SABR in oligometastatic breast cancer: Current status and future directions. Breast 60:223-229. doi: 10.1016/j.breast.2021.10.009.

Stockler MR, Martin AJ, Davis ID, Dhillon HM, Begbie SD, Chi One Size Does Not Fit All. Front Surg 9:818097. doi: 10.3389/ KN, Chowdhury S, Coskinas X, Frydenberg M, Hague WE, fsura.2022.818097. Horvath LG, Joshua AM, Lawrence NJ, Marx GM, McCaffrey J, McDermott R, McJannett M, North SA, Parnis F, Parulekar WR, Yan MK, Adler NR, Pan Y, Chamberlain A, Kelly J, Yap K, Pook DW, Reaume MN, Sandhu S, Tan A, Tan TH, Thomson A, Voskoboynik M, Haydon A, Shackleton M, Mar VJ. (2022) Yield Vera-Badillo F, Williams SG, Winter DG, Yip S, Zhang AY, Zielinski of baseline imaging for distant metastases in high-risk primary melanoma. J Surg Oncol 125(8):1312-1317. doi: 10.1002/jso.26846. RR, Sweeney CJ; ENZAMET Trial Investigators and the Australian and New Zealand Urogenital and Prostate Cancer Trials Group Yan MK, Orchard SG, Adler NR, Wolfe R, McLean C, Rodríguez (ANZUP). (2022) Health-Related Quality of Life in Metastatic, LM, Woods RL, Gibbs P, Chan AT, Haydon A, Mar VJ. (2022) Hormone-Sensitive Prostate Cancer: ENZAMET (ANZUP 1304), Association between hypertension and cutaneous melanoma, an International, Randomized Phase III Trial Led by ANZUP. J Clin and the effect of aspirin: extended follow-up of a large Oncol 40(8):837-846. doi: 10.1200/JCO.21.00941. randomised controlled trial. Cancer Epidemiol 79:102173. doi: 10.1016/j.canep.2022.102173.

Tesileanu CMS, Sanson M, Wick W, Brandes AA, Clement PM, Erridge SC, Vogelbaum MA, Nowak AK, Baurain JF, Mason WP, Yan MK, Orchard SG, Adler NR, Wolfe R, McLean C, Rodriguez Wheeler H, Chinot OL, Gill S, Griffin M, Rogers L, Taal W, Rudà LM, Woods RL, Gibbs P, Chan AT, **Haydon A**, Mar VJ. (2022) R, Weller M, McBain C, van Linde ME, Aldape K, Jenkins RB, Effect of Aspirin on Melanoma Incidence in Older Persons: Kros JM, Wesseling P, von Deimling A, Hoogstrate Y, de Heer I, Extended Follow-up of a Large Randomized Double-blind Atmodimedjo PN, Dubbink HJ, Brouwer RWW, van IJcken WFJ, Placebo-controlled Trial. Cancer Prev Res (Phila) 15(6):365-375. Cheung KJ, Golfinopoulos V, Baumert BG, Gorlia T, French PJ, doi: 10.1158/1940-6207.CAPR-21-0244. van den Bent MJ. (2022) Temozolomide and Radiotherapy versus Radiotherapy Alone in Patients with Glioblastoma, IDH-wildtype: Yanes T, Meiser B, Kaur R, Young MA, Mitchell PB, Scheepers-Post Hoc Analysis of the EORTC Randomized Phase III CATNON Joynt M, McInerny S, Taylor S, Barlow-Stewart K, Antill Y, Salmon Trial. Clin Cancer Res 28(12):2527-2535. doi: 10.1158/1078-0432. L, Smyth C, Betz-Stablein B, James PA. (2021) Breast cancer CCR-21-4283. polygenic risk scores: a 12-month prospective study of patient reported outcomes and risk management behavior. Genet Med Tie J, Cohen JD, Lahouel K, Lo SN, Wang Y, Kosmider S, Wong R, 23(12):2316-2323.

Shapiro J, Lee M, Harris S, Khattak A, Burge M, Harris M, Lynam J, Nott L, Day F, Hayes T, McLachlan SA, Lee B, Ptak J, Silliman N, Dobbyn L, Popoli M, Hruban R, Lennon AM, Papadopoulos N, Kinzler KW, Vogelstein B, Tomasetti C, Gibbs P; DYNAMIC Investigators. (2022) Circulating Tumor DNA Analysis Guiding Adjuvant Therapy in Stage II Colon Cancer. N Engl J Med 386(24):2261-2272. doi: 10.1056/NEJMoa2200075.

To YH, Shapiro J, Wong R, Thomson B, Nagrial A, Mendis S, Gibbs P, Shapiro J, Lee B. (2022) Treatment and outcomes of unresectable and metastatic pancreatic cancer treated in public and private Australian hospitals. Asia Pac J Clin Oncol 18(4):448-455. doi: 10.1111/ajco.13721.

**Zopf EM**, Schulz H, Poeschko J, Aschenbroich K, Wilhelm Wang CY, Zoungas S, Voskoboynik M, Mar V. (2022) T, Eypasch E, Kleimann E, Severin K, Benz J, Liu E, Bloch W, Cardiovascular disease and malignant melanoma. Melanoma Res Baumann FT. (2022) Effects of supervised aerobic exercise 32(3):135-141. doi: 10.1097/CMR.00000000000817.

Wells JC, Sidhu A, Ding K, Smoragiewicz M, Heng DYC, Shepherd FA, Ellis PM, Bradbury PA, Jonker DJ, Siu LL, Gelmon KA, Karapetis C, Shapiro J, Nott L, O'Callaghan CJ, Parulekar WR, Seymour L, Monzon JG. (2022) Complementary Medicine Use Amongst Patients with Metastatic Cancer Enrolled in Phase III Clinical Trials. Oncologist 27(3):e286-e293. doi: 10.1093/oncolo/oyac020.

Wight J, Hamad N, Campbell BA, Ku M, Lee K, Rose H, Armytage T, Latimer M, Lee HP, Lee ST, Dickinson M, Khor R, Verner E. (2021) Diffuse large B-cell lymphoma: a consensus practice statement from the Australasian Lymphoma Alliance. Intern Med J doi: 10.1111/imj.15533.

Wilkins S, Yap R, Mendis S, Carne P, McMurrick PJ. (2022) Surgical Techniques for Abdominoperineal Resection for Rectal Cancer:

Zaman FY, Orchard SG, Haydon A, Zalcberg JR. (2022) Nonaspirin non-steroidal anti-inflammatory drugs in colorectal cancer: a review of clinical studies. Br J Cancer doi: 10.1038/ s41416-022-01882-8.

Zinzani PL, Ramchandren R, Santoro A, Paszkiewicz-Kozik E, Gasiorowski R, Johnson NA, de Oliveira JSR, Buccheri V, Perini GF, **Dickinson M**, McDonald A, Özcan M, Sekiguchi N, Zhu Y, Raut M, Saretsky TL, Nahar A, Kuruvilla J. (2022) Quality -of-life analysis of pembrolizumab vs brentuximab vedotin for relapsed/ refractory classical Hodgkin lymphoma. Blood Adv6(2):590-599 doi: 10.1182/bloodadvances.2021004970.



on cardiorespiratory fitness and patient-reported health outcomes in colorectal cancer patients undergoing adjuvant chemotherapy-a pilot study. Support Care Cancer 30(3):1945-1955. doi: 10.1007/s00520-021-06608-9.

### CABRINI MONASH UNIVERSITY DEPARTMENT OF NURSING RESEARCH

Baswa A, Russo PL, Doyle JS, Ayton D, Stewardson AJ. (2022) Experience and perspectives of infection prevention staff of the COVID-19 response in Australian hospitals. Antimicrob Resist Infect Control 11(1):77. doi: 10.1186/s13756-022-01116-9.

McGuinness SL, Johnson J, Eades O, Cameron PA, Forbes A, Fisher J, Grantham K, Hodgson C, Hunter P, Kasza J, Kelsall HL, Kirkman M, Russell G, Russo PL, Sim MR, Singh KP, Skouteris H, Smith KL, Stuart RL, Teede HJ, Trauer JM, Udy A, Zoungas S, Leder K. (2022) Mental Health Outcomes in Australian Healthcare and Aged-Care Workers during the Second Year of the COVID-19 Pandemic. Int J Environ Res Public Health 19(9):4951. doi: 10.3390/ijerph19094951.

Sotomayor-Castillo C, Nahidi S, Li C, Macbeth D, Russo PL, Mitchell BG, Cruikshank M, Sorrell T, Gilroy N, Ferguson P, Watts MR, Shaban RZ. (2021) Infection control professionals' and infectious diseases physicians' knowledge, preparedness, and experiences of managing COVID-19 in Australian healthcare settings. Infection, Disease and Health 26(4):249-257. doi: 10.1016/j.idh.2021.05.002.

### CABRINI MONASH UNIVERSITY DEPARTMENT OF SURGERY

Baqar AR, Wilkins S, Wang WC, Oliva K, Centauri S, Yap R, McMurrick P. (2022) A comparison of extracorporeal side to side or end to side anastomosis following a laparoscopic right hemicolectomy for colon cancer. ANZ J Surg 92(6):1472-1479. doi: 10.1111/ans.17701.

Engel RM, Jardé T, Oliva K, Kerr G, Chan WH, Hlavca S, Nickless D, Archer SK, Yap R, Ranchod P, Bell S, Niap A, Koulis C, Chong A, Wilkins S, Dale TC, Hollins AJ, McMurrick PJ, Abud HE. (2022) Modeling colorectal cancer: A bio-resource of 50 patientderived organoid lines. J Gastroenterol Hepatol 37(5):898-907. doi: 10.1111/jgh.15818.

Finkelstein DI, Billings JL, Adlard PA, Ayton S, Sedjahtera A, Masters CL, Wilkins S, Shackleford DM, Charman SA, Bal W, Zawisza IA, Kurowska E, Gundlach AL, Ma S, Bush AI, Hare DJ, Doble PA, Crawford S, Gautier ECL, Parsons J, Huggins P, Barnham KJ, Cherny RA. (2021) Correction to: The novel compound PBT434 prevents iron mediated neurodegeneration and alpha-synuclein toxicity in multiple models of Parkinson's disease. Acta Neuropathol Commun 9(1):161. doi: 10.1186/ s40478-021-01258-8.

Nefzger CM, Jardé T, Srivastava A, Schroeder J, Rossello FJ, Horvay K, Prasko M, Paynter JM, Chen J, Weng CF, Sun YBY, Liu X, Chan E, Deshpande N, Chen X, Li YJ, Pflueger J, Engel RM, Knaupp AS, Tsyganov K, Nilsson SK, Lister R, Rackham OJL, Abud HE, Polo JM. (2022) Intestinal stem cell aging signature reveals a reprogramming strategy to enhance regenerative potential. NPJ Regen Med 7(1):31. doi: 10.1038/s41536-022-00226-7.

Wilkins S, Yap R, Mendis S, Carne P, McMurrick PJ. (2022) Surgical Techniques for Abdominoperineal Resection for Rectal Cancer: One Size Does Not Fit All. Front Surg 9:818097. doi: 10.3389/fsurg.2022.818097.

Yan H, Vail ME, Hii L, Guo N, McMurrick PJ, Oliva K, Wilkins S, Saha N, Nikolov DB, Lee FT, Scott AM, Janes PW. (2022) Preferential Antibody and Drug Conjugate Targeting of the ADAM10 Metalloprotease in Tumours. Cancers (Basel) 14(13):3171. doi: 10.3390/cancers14133171.

### MONASH CABRINI DEPARTMENT OF MUSCULOSKELETAL HEALTH AND CLINICAL EPIDEMIOLOGY

Ackerman IN, Ayton D. (2022) Orthopaedic surgeons' perceptions of the changing burden of revision joint replacement surgery in Australia: A qualitative study. Musculoskeletal Care 20(1):200-8.

Ackerman IN, Barker A, Soh S-E. (2022) Falls prevention and osteoarthritis: time for awareness and action. Disabil Rehabil. doi: 10.1080/09638288.2022.2040617.

Ackerman IN, Buchbinder R. (2022) Let's talk about shoulder osteoarthritis. [Invited Editorial] Rheumatology (Oxford). doi: 10.1093/rheumatology/keac057.

Ackerman IN, Busija L, Lorimer M, de Steiger R, Graves SE. (2022) Monitoring the lifetime risk of revision knee arthroplasty over a decade: a population-level analysis of Australian national registry data. Bone Joint J 104-B(5):613-9.

Ackerman IN, Soh S-E, de Steiger R. (2022) Actual versus forecast burden of primary hip and knee replacement surgery in Australia: analysis of data from the Australian Orthopaedic Association National Joint Replacement Registry. J Clin Med 11(7):1883.

Altun A, Soh S-E, Brown H, Russell G. (2022) The association between chronic pain and pre- and post-migration experiences in resettled humanitarian refugee women residing in Australia. BMC Public Health 22:911.

Altun A, Soh S-E, Brown H, Russell G. (2022) Pre- and postmigration factors associated with chronic pain in humanitarian refugee women living in Australia: A protocol study. Aust J Gen Pract 51(5):367-71.

Anderson DB, Beard DJ, Sabet T, Eyles JP, Harris IA, Adie S, Buchbinder R, Maher CG, Ferreira ML. (2021) Evaluation of placebo fidelity and trial design methodology in placebocontrolled surgical trials of musculoskeletal conditions: a systematic review. Pain 163(4):637-51.

Andrés M, Sivera F, Buchbinder R, Pardo JP, Carmona L. (2021) Dietary supplements for chronic gout (Update). Cochrane Database Syst Rev 10:CD010156.

Avery JC, Whittle SL, Johnston RV, Grobler L, McKenzie BJ, Cyril S, van der Heijde D, Buchbinder R. (2022) Dose reduction and discontinuation of biologic and targeted synthetic disease modifying anti rheumatic drugs (DMARDs) in people with axial spondyloarthritis and low disease activity (Protocol). Cochrane Database Syst Rev 11:CD014836.

Bakker MM, Putrik P, Dikovec C, Rademakers J, Vonkeman HE, Kok MR, Voorneveld-Nieuwenhuis H, Ramiro S, de Wit M, Buchbinder R, Batterham R, Osborne RH, Boonen A. (2022) Exploring discordance between Health Literacy Questionnaire scores of people with RMDs and assessment by treating health professionals. Rheumatology (Oxford). doi: 10.1093/ rheumatology/keac248.

Barton CJ, Pazzinatto MF, Crossley KM, Dundules K, Lannin NA, Francis M, Wallis J, Kemp JL. (2021) Reported practices related to, and capability to provide, first-line knee osteoarthritis treatments: a survey of 1064 Australian physical therapists. Braz J Phys Ther 25():854-63.

Barton CJ, Kemp JL, Roos EM, Skou ST, Dundules K, Pazzinatto M, Matthew F, Wallis J, Crossley KM. (2021) Program evaluation of GLAD Australia physiotherapist and patient outcomes. Osteoarthritis and Cartilage 29:S402-3.

Beard DJ, Campbell MK, Blazeby JM, Carr AJ, Weijer C, Buchbinder R, Harris I. (2022) Are doctors living up to the ideals Cuthbertson BH, Buchbinder R, Pinkney T, Bishop FL, Puch J, expressed in the Hippocratic Oath? [Invited]. Israel Med Assoc J Cousins S, Harris I, Lohmander LS, Blencowe N, Gillies K, Probst 24:350-2. P. Brennan C. Cook A. Farrar-Hocklev D. Savulescu J. Huxtable Buchbinder R, Karjalainen TV, Gorelik A. (2022) Editorial R, Rangan A, Tracey I, Brocklehurst P, Ferreira ML, Nicholl J, Commentary: Arthroscopic treatment should no longer be Reeves BC, Hamdy F, Rowley SCs, Lee N, Cook JA. (2021) Placebo offered to people with subacromial impingement. Arthroscopy comparator group selection and use in surgical trials: the ASPIRE project including expert workshop. Health Technol Assess https://doi.org/10.1016/j.arthro.2022.03.017. 25(53):1-52.

Bell K, Sanders S, Moynihan R, Irwig L, Glasziou P, Buchbinder R, Jones M, Kazda L, Doust J, Barratt A. (2022) A novel methodological framework was described for detecting and quantifying overdiagnosis. J Clin Epidemiol 148:146-59.

Bennell KL, Paterson KL, Metcalf BR, Duong V, Eyles J, Kazsa J, Wang Y, Cicuttini F, Buchbinder R, Forbes A, Harris A, Yu SP, Connell D, Linklater J, Want BH, Hunter DJ. (2021) Effect of Intra-articular Platelet-Rich Plasma vs Placebo Injection on Pain and Medial Tibial Cartilage Volume in Patients With Knee Osteoarthritis: The RESTORE Randomized Clinical Trial. JAMA 326(20):2021-30.

Berkovic D, Ayton D, Briggs AM, Ademi Z, Ackerman IN. (2021) Personal healthcare costs borne by younger people living with arthritis in Australia: An exploratory observational study. Health Soc Care Community. doi: 10.1111/hsc.13697.

Cross AJ, Buchbinder R, Mathieson S, Bourne A, Maher CG, Lin Berkovic D, Fransquet R, Soh S-E, Ayton D. (2022) Experiences of C-W C, O'Connor DA. (2022) Barriers and enablers to monitoring adults with adult-onset Type I diabetes: a cross-sectional study. and deprescribing opioid analgesics for chronic non-cancer Aus J Prim Health. doi: 10.1071/PY21273. pain: a systematic review with qualitative evidence synthesis Bråten LC, Johnston RV, Järvinen T, Suter C, Saku S, Buchbinder using the Theoretical Domains Framework. BMJ Qual Saf R. (2021) Pharmacological treatment for prevention of fractures 31(5):387-400.

in men. (Protocol) Cochrane Database Syst Rev 8:CD014707.

Brennen R, Lin K-Y, Denehy L, Soh S-E, Frawley H. (2022) Patient and clinician perspectives of pelvic floor dysfunction after gynaecological cancer. Gynecol Oncol Rep 41:101007.

Buchbinder R, Bourne A, Staples M, Lui C, Walker K, Ben-Meir M, Gorelik A, Blecher G. (2022) Management of patients presenting with low back pain to a private hospital emergency department in Melbourne, Australia. Emerg Med Australas. 34(2):157-63.

Buchbinder R, Haas R. (2021) Optimising treatment for patients with rotator cuff disorders. [Invited Commentary] The Lancet 398(10298):369-70.

Buchbinder R, Harris I. (2021) Hippocrasy: how doctors have betrayed their oath, New South Publishing.

Buchbinder R, Harris I. (2021) The doctors betraying their oath to do no harm. Weekend Australian Magazine, 25 September 2021 (excerpt from book: Hippocrasy).

Buchbinder R, Harris I. (2021) BMJ Podcast – BMJ Too Much Medicine and Cochrane Sustainable Healthcare series, interview by Fiona Godlee (Editor, BMJ) and Ray Moynihan. (25 August 2021), 16 Nov 2021.

Briggs AM, Slater H, van Doornum S, Pearson L, Tassone E, Romero L, Chua J, Ackerman IN. (2022) Chronic Primary or Secondary Noninflammatory Musculoskeletal Pain and Disrupted Sexual Function and Relationships: A Systematic Review. Arthritis Care Res (Hoboken) 74(6):1019-37.

Busse JW, Vankrunkelsven P, Zeng L, Heen AF, Merglen A, Campbell F, Petter L, Aertgeerts B, Buchbinder R, Coen M, Juurlink D, Samer C, Siemieniuk RAC, Kumar N, Cooper L, Brown J Lytvyn L, Zeraatkar D, Wang Li, Guyatt GH, Vandvik PO, Agoritsas T. (2021) Medical cannabis for chronic pain: a clinical practice guideline. BMJ 374:n2040.

Cahill LS, Carey LM, Mak-Yuen Y, McCluskey A, Neilson C, O'Connor D, Lannin NA. (2021) Factors influencing allied health professionals' implementation of upper limb sensory rehabilitation for stroke survivors: A qualitative study to inform knowledge translation. BMJ Open 11:e042879.



**Di Donato M**, Iles R, **Buchbinder R**, Xia T, Collie A. (2022) Prevalence, Predictors and Wage Replacement Duration Associated with Diagnostic Imaging in Australian Workers with Accepted Claims for Low Back Pain: A Retrospective Cohort Study. J Occup Rehabil 32(1):55-63.

**Di Donato MF**, Xia T, Iles R, **Buchbinder R**, Collie A. (2021) Patterns of opioid dispensing and associated wage replacement duration in workers with accepted claims for low back pain: a retrospective cohort study. Pain. doi: 10.1097/j. pain.00000000002539.

Farmer C, Bourne A, Haas R, Wallis J, O'Connor D, Buchbinder R. (2022) Can modifications to how medical imaging findings are reported improve quality of care? A systematic review. Clin Radiol 77(6):428-35.

**Farmer C, O'Connor D**, Lee H, McCaffrey K, Maher C, Newell D, Cashin A, Byfield D, Jarvik J, **Buchbinder R**. (2021) Consumer understanding of terms used in imaging reports requested for low back pain. BMJ Open 11:e049938.

Fernandez M, Young A, Kongsted A, Hartvigsen J, Barton C, Wallis J, Kent P, Kawchuk G, Jenkins H, Hancock M, French SD. (2022) GLA: D<sup>®</sup> Back Australia: a mixed methods feasibility study for implementation. Chiropractic & Manual Therapies 30(1):1-2.

Fletcher A, Lassere M, March L, Hill C, Barrett C, Carroll G, Buchbinder R. (2022) Patterns of biologic and targeted-synthetic disease-modifying antirheumatic drug use in rheumatoid arthritis in Australia. Rheumatology (Oxford). doi: 10.1093/ rheumatology/keac048.

French SD, **O'Connor DA**, Green SE, Page MJ, Mortimer DS, Turner SL, Walker BF, Keating JL, Grimshaw JM, Michie S, Francis JJ, McKenzie JE. (2022) Improving adherence to acute low back pain guideline recommendations with chiropractors and physiotherapists: the ALIGN cluster randomised controlled trial. Trials 23:142.

Gibbs AJ, **Wallis JA**, Taylor NF, Kemp JL, Barton C. (2022) Osteoarthritis management care pathways are complex and inefficient: A qualitative study of physiotherapist perspectives from specialised osteoarthritis services. Musculoskeletal Care. doi: 10.1002/msc.1638.

Gill S, Graves S, Lorimer M, de Steiger R, **Ackerman I**, Ellis A, Page R. (2022) COVID-19 impact on joint replacement surgery in Australia in 2020: a nationwide perspective. ANZ J Surg 92(1-2):10-3.

Glennon V, Whittle SL, Hill CL, Johnston RV, Avery JC, Grobler L, McKenzie BJ, Cyril S, Pardo Pardo J, Buchbinder R. (2021) Short-term glucocorticoids for flares in people with rheumatoid arthritis receiving disease-modifying anti-rheumatic drugs (DMARDs) (Protocol). Cochrane Database Syst Rev 11:CD014898.

**Grobler L, O'Connor D**, Rischin D, **Putrik P**, Karnon J, Rischin KJ, **McKenzie BJ, Buchbinder R**. (2022) Delivery of intravenous anti cancer therapy at home versus in hospital or community settings for adults with cancer (Protocol). Cochrane Database Syst Rev 5: CD014861. Groombridge CJ, Maini A, Ayton D, **Soh S-E**, Walsham N, Kim Y, Smit DV, Fitzgerald M. (2021) Emergency physicians' experience of stress during resuscitation and strategies for mitigating the effects of stress on performance. Emerg Med J. doi: 10.1136/ emermed-2021-211280.

Haas R, Busija L, Gorelik A, O'Connor DA, Pearce C, Mazza D, Buchbinder R. (2021) Patterns of care for people presenting to Australian general practice with musculoskeletal complaints based on routinely collected data: protocol for an observational cohort study using the Population Level Analysis and Reporting (POLAR) database. BMJ Open 11(9):e055528.

Harris I, **Buchbinder R**. (2021) How doctors are betraying the Hippocratic Oath. [Invited Opinion Piece] BMJ 375:n2808.

Harris IA, Cashman K, Lorimer M, Peng Y, **Ackerman I**, Heath E, Graves SE. (2021) Are responders to patient health surveys representative of those invited to participate? An analysis of the Patient-Reported Outcome Measures Pilot from the Australian Orthopaedic Association National Joint Replacement Registry. PLoS One 16(7):e0254196.

Harris IA, Peng A, Cashman K, **Ackerman I**, Heath E, Rowden N, Graves SE. (2022) Association between patient factors and hospital completeness of a patient-reported outcome measures program in joint arthroplasty, a cohort study. J Patient Rep Outcomes 6(1):32.

Heath EL, **Ackerman IN**, Holder C, Lorimer MF, Graves SE, Harris IA. (2022) Between-hospital and between-surgeon variation in thresholds for hip and knee replacement. ANZ J Surg. doi: 10.1111/ans.17811.

Heath EL, **Ackerman IN**, Lorimer MF, Rainbird S, O'Donohue G, Brock A, Graves SE, Harris IA. (2022) National Implementation of an Electronic Patient-Reported Outcome Measures Program for Joint Replacement Surgery: Pilot Study. JMIR Form Res 6(4):e30245.

Heikkinen J, Jokihaara J, Das De S, Jaatinen K, **Buchbinder R**, Karjalainen T. (2022) Bias in Hand Surgical Randomized Controlled Trials: Systematic Review and Meta-Epidemiological Study. J Hand Surg Am 47(6):526-33.

Hunter KE, Johnson BJ, Askie L, Golley RK, Baur LA, Marschner IC, Taylor RW, Wolfenden L, Wood CT, Mihrshahi S, Hayes AJ, Rissel C, Robledo KP, **O'Connor DA**, Espinoza D, Staub LP, Chadwick P, Taki S, Barba A, Libesman S, Aberoumand M, Smith WA, Sue-See M, Hesketh KD, Thomson JL, Bryant M, Paul IM, Verbestel V, Stough CO, Wen LM, Larsen JK, O'Reilly SL, Wasser HM, Savage JS, Ong KK, Salvy SJ, Messito MJ, Gross RS, Karssen LT, Rasmussen FE, Campbell K, Linares AM, Øverby NC, Palacios C, Joshipura KJ, González Acero C, Lakshman R, Thompson AL, Maffeis C, Oken E, Ghaderi A, Campos Rivera M, Pérez-Expósito AB, Banna JC, de la Haye K, Goran M, Røed M, Anzman-Frasca S, Taylor BJ, Seidler AL; Transforming Obesity Prevention for CHILDren (TOPCHILD) Collaboration. (2022) Transforming Obesity Prevention for CHILDren (TOPCHILD) Collaboration: protocol for a systematic review with individual participant data meta-analysis of behavioural interventions for the prevention of early childhood obesity. BMJ Open 12(1):e048166.

Ikonen J, Lähdeoja T, Ardern CL, **Buchbinder R**, Reito A, Karjalainen TV. (2022) Persistent tennis elbow symptoms have little prognostic value: A systematic review and meta-analysis. Clin Orth Rel Res 480(4):647-60.

Jenkins HJ, Ferreira C, Downie A, Maher C, **Buchbinder R**, Hancock M. (2022) The available evidence on the effectiveness of 10 common approaches to the management of non-specific low back pain: An evidence map. Eur J Pain 26:1399-1411.

Jin X, **Ackerman IN**, Ademi Z. (2022) Loss of Productivity-Adjusted Life Years in Working-age Australians Due To Knee Osteoarthritis: A Life-table Modelling Approach. Arthritis Care Res (Hoboken). doi 10.1002/acr.24886.

Johnson BJ, Hunter KE, Golley RK, Chadwick P, Barba A, Aberoumand M, Libesman S, Askie L, Taylor RW, Robledo KP, Mihrshahi S, O'Connor DA, Hayes AJ, Wolfenden L, Wood CT, Baur LA, Rissel C, Staub LP, Taki S, Smith W, Sue-See M, Marschner IC, Espinoza D, Thomson JL, Larsen JK, Verbestel V, Odar Stough C, Salvy SJ, O'Reilly SL, Karssen LT, Rasmussen FE, Messito MJ, Gross RS, Bryant M, Paul IM, Wen LM, Hesketh KD, González Acero C, Campbell K, Øverby NC, Linares AM, Wasser HM, Joshipura KJ, Palacios C, Maffeis C, Thompson AL, Ghaderi A, Lakshman R, Banna JC, Oken E, Campos Rivera M, Pérez-Expósito AB, Taylor BJ, Savage JS, Røed M, Goran M, de la Haye K, Anzman-Frasca S, Seidler AL; Transforming Obesity Prevention for CHILDren (TOPCHILD) Collaboration. (2022) Unpacking the behavioural components and delivery features of early childhood obesity prevention interventions in the TOPCHILD Collaboration: a systematic review and intervention coding protocol. BMJ Open 12(1):e048165.

Jones CMP, Abdel Shaheed C, Ferreira GE, Mannix L, Harris IA, **Buchbinder R**, Maher CG. (2022) Spinal Cord Stimulators: An Analysis of the Adverse Events Reported to the Australian Therapeutic Goods Administration. J Patient Safe. doi: 10.1097/ PTS.0000000000000971.

Karjalainen T, Richards B, **Buchbinder R**. (2022) Platelet-rich plasma injections for lateral elbow pain – did they ever work? BMJ Open Sport Ex Med 8:e001258.

Karjalainen TV, Silagy M, O'Bryan E, **Johnston RV, Cyril S**, **Buchbinder R**. (2021) Autologous blood and platelet rich plasma injection therapy for lateral elbow pain. Cochrane Database Syst Rev 9:CD010951.

Kerr MM, Graves SE, Duszynski KM, Inacio MC, de Steiger RN, Harris IA, **Ackerman IN**, Jorm LR, Lorimer MF, Gulyani A, Pratt NL. (2021) Does a Prescription-based Comorbidity Index Correlate with the American Society of Anesthesiologists Physical Status Score and Mortality After Joint Arthroplasty? A Registry Study. Clin Orthop Relat Res 479(10):2181-90.

Lalor AF, Brooker JE, Rozbroj T, Whittle S, Hill C, Rowett D, Buchbinder R, O'Connor DA. (2022) Factors influencing

clinician prescribing of disease-modifying anti-rheumatic drugs for inflammatory arthritis: A systematic review and thematic synthesis of qualitative studies. Semin Arthritis Rheum 55:151988.

Lee C, Thomas M, Ejaredar M, Kassam A, **Whittle SL, Buchbinder R**, Tugwell P. Wells G, Pardo JP, Hazlewood GS. (2022) Crowdsourcing trainees in a living systematic review provided valuable experiential learning opportunities: a mixed-methods study. J Clin Epidemiol 147:142-50.

Liu C, Abdel Shaheed C, Bråten LC, Hancock MJ, Underwood M, Elliott J, Jarvik JG, Maher CG, **Buchbinder R**, Lin C-WC. (2021) Antibiotic treatment for low back pain or radicular pain, or both (Protocol). Cochrane Database Syst Rev 9:CD014221.

McKenzie BJ, Wechalekar MD, Johnston RV, Schlesinger N, Buchbinder R. (2021) Colchicine for acute gout. Cochrane Database Syst Rev 8:CD006190. doi: 10.1002/14651858. CD006190.pub3.

McKenzie BJ, Whittle SL, Johnston RV, Hill CL, Pardo Pardo J, Glennon V, Grobler L, Avery JC, Cyril S, Buchbinder R. (2021) Long term glucocorticoids for rheumatoid arthritis (Protocol). Cochrane Database Syst Rev 12:CD014899.

Nemeh R, **Buchbinder R**, Hawley CM, Nelson MR, Waterkeyn JG, Reid CM. (2022) Activities supporting the growth of Clinical Trial Networks in Australia. Trials 23(1):81.

Oakley L, **Soh S-E**, Kimmel L, Mulvey N, Curtis H, Holland AE. (2022) The impact of obesity in rehabilitation: a mismatch between staff perception and hospital outcomes. Disabil Rehabil 44(3):363-9.

**O'Connor DA**. Cochrane Podcast - Arthroscopic surgery for degenerative knee disease, interview by Ray Moynihan, 30 June 2022.

O'Connor D, Johnston RV, Brignardello-Petersen R, Poolman RW, Cyril S, Vandvik PO, Buchbinder R. (2022) Arthroscopic surgery for degenerative knee disease (osteoarthritis including degenerative meniscal tears). Cochrane Database Syst Rev 3:CD014328.

O'Keeffe M, Michaleff ZA, Harris IA, **Buchbinder R**, Ferreira GE, Zadro JR, Traeger AC, Thomas R, Belton J, Darlow B, Maher CG. (2022) Effect of diagnostic labelling on management intentions for non-specific low back pain: A randomized scenario-based experiment. Eur J Pain 26:1532-45.

Oliveira C, Hamilton M, Traeger A, **Buchbinder R**, Richards B, Rogan E, Maher CG, Machado GC. (2022) Do Patients with Acute Low Back Pain in Emergency Departments Have More Severe Symptoms than Those in General Practice? A Systematic Review with Meta-Analysis. Pain Med 23(4):614-24.

Pajari J, Jokihaara J, Waris E, Taimela S, Järvinen T, **Buchbinder R**, Karjalainen T. (2022) Responsiveness of different pain measures and recall periods in people undergoing surgery after a period of splinting for basal thumb joint osteoarthritis. BMC Med Res Methodol. 22(1):37.



Ponkilainen V, Karjalainen TV, KuitunenI, Uimonen M, Johnston RV, Saarinen A, Whittle SL, Avery JC, Glennon V, Grobler L, Buchbinder R. (2022) Perioperative use of disease modifying anti-rheumatic drugs DMARDs) in people with inflammatory arthritis (Protocol). Cochrane Database Syst Rev 5:CD015096.

Quick S, Snowdon D, Lawler K, McGinley J, **Soh S-E**, Callisaya M. (2022) Physiotherapists' and physiotherapy students' attitudes and beliefs about working with people with dementia: a mixed methods systematic review. Phys Ther 102(5):pzac010.

Renton WD, Tiller G, Munro J, Tan J, Johnston RV, Avery JC, Whittle SL, Arno A, Buchbinder R. (2022) Dose reduction and discontinuation of disease modifying anti rheumatic drugs (DMARDs) for juvenile idiopathic arthritis (Protocol). Cochrane Database Syst Rev 1:CD014961.

**Rozbroj T, Haas R, O'Connor D**, Carter SM, McCaffery K, Thomas R, Donovan J, **Buchbinder R**. (2021) How do people understand overtesting and overdiagnosis? Systematic review and metasynthesis of qualitative research. Soc Sci Med 285:114255.

**Rozbroj T**, McCaffery K. (2021) The importance of addressing social inequalities and targeting the undecided to promote vaccination against COVID-19. The Lancet Regional Health - Western Pacific 14:100250.

Ruseckaite R, Maharaj AD, Dean J, Krysinska K, **Ackerman IN**, Brennan AL, **Busija L**, Carter H, Earnest A, Forrest CB, Harris IA, Sansoni J, Ahern S. (2022) Preliminary development of recommendations for the inclusion of patient-reported outcome measures in clinical quality registries. BMC Health Serv Res 22(1):276.

Shrubsole K, Copland D, Hill A, Khan A, Lawrie M, **O'Connor DA**, Pattie M, Rogriquez A, Ward EC, Worrall L, McSween M-P. (2022) Development of a tailored intervention to implement an Intensive and Comprehensive Aphasia Program (ICAP) into Australian health services. Aphasiology. doi: 10.1080/02687038.2022.2095608.

Soh S-E, Ayton D, Berkovic D, Parker C, Yu K, Honeman D, Manocha R, MacIntyre R, Anada-Rajah M. (2022) Experiences of personal protective equipment by Australian healthcare workers during the COVID-19 pandemic, 2020: A cross-sectional study. PLoS One 17(6):e0269484.

**Soh S-E**, Harris IA, Cashman K, Graves S, **Ackerman IN**. (2022) Crosswalks between the Oxford Hip and Knee Scores and the HOOS-12 and KOOS-12 instruments. Osteoarthritis Cartilage 30(4): 570-77.

**Soh S-E**, Harris IA, Cashman K, Heath E, Lorimer M, Graves SE, **Ackerman IN**. (2022) Minimal clinically important changes for the HOOS-12 and KOOS-12 instruments in people undergoing joint replacement surgery. J Bone Joint Surg Am 104(11):980-7.

**Soh S-E**, Morgan PE, Hopmans R, Barker AL, **Ackerman IN**. (2022) The feasibility and acceptability of a falls prevention e-learning program for physiotherapists. Physiother Theory Pract. doi: 10.1080/09593985.2021.2023928.

Sridhar S, **Haas R, Docking S, Buchbinder R, O'Connor D**. (2021) Models of care for managing non-specific low back pain (Protocol). Cochrane Database Syst Rev 12:CD015083.

Tang CC, **Soh S-E**, Boonstra F, Noffs G, Kolbe SC, Butzkueven H, Evans A, van der Walt A. (2022) Quantifying the impact of upper limb tremor on the quality of life of people with multiple sclerosis: a comparison between the QUEST and MSIS-29 scales. Mult Scler Relat Disord 58:103495.

Terrens AF, **Soh S-E**, Morgan P. (2022) What web-based information is available for people with Parkinson's disease interested in aquatic physiotherapy? A social listening study. BMC Neurol 22(1):170.

Traeger AC, Underwood M, Ivers R, **Buchbinder R**. (2022) Low back pain in people aged 60 years and over. BMJ 376:e066928.

van Durme CMPG, Wechalekar MD, Landewé RBM, Pardo Pardo J, **Cyril S**, van der Heijde D, **Buchbinder R**. (2021) Non steroidal anti inflammatory drugs for acute gout. Cochrane Database Syst Rev 12:CD010120.

**Wallis JA**, Barton CJ, Brusco NK, Kemp J, Sherwood J, Young K, Jennings S, Trivett A, **Ackerman IN**. (2021) Exploring views of orthopaedic surgeons, rheumatologists and general practitioners about osteoarthritis management. Musculoskeletal Care 19(4):521-32.

Wang L, Hong PJ, May C, Rehman Y, Oparin Y, Hong C, Hong BY, AminiLari M, Gallo L, Kaushal A, Craigie S, Couban RJ, Kum E, Shanthanna H, Price I, Upadhye S, Ware M, Campbell F, **Buchbinder R**, Agoritsas T, Busse JW. (2021) Medical cannabis for chronic pain: a systematic review and meta-analysis of randomized clinical trials. BMJ 373:n1034.

Whittle SL, Clennon V, Johnston RV, Avery JC, Bell JS, Brennan SE, Fong C, Hissaria P, Horgan B, O'Neill S, Pisaniello HL, Trevena L, Whittaker GA, Wluka A, **Buchbinder R**. (2022) Australian recommendations on tapering of biologic and targeted synthetic disease-modifying anti-rheumatic drugs in inflammatory arthritis. Intern Med J. doi: 10.1111/imj.15816.

Wiles L, Hibbert P, Stephens J, Molloy C, Maher CG, **Buchbinder R**, Moseley GL, O'Sullivan PB, Lin I, Briggs A, Slater H, Harris I, Jan S, Dwyer A, Fallon K, Hogg M, Fried K, Needs C, Casey P, Dabestani R, Kay D, Braithwaite J, Runciman W. (2022) What Constitutes "Appropriate Care" for Low Back Pain?: Point-of-Care Clinical Indicators From Guideline Evidence and Experts (the STANDING Collaboration Project). Spine 47(12):879-91.

Willers C, Lynch T, **Chand V**, Islam Mohammad, Lassere M, March L. (2022) A Versatile, Secure, and Sustainable All-in-One Biobank-Registry Data Solution: The A3BC REDCap Model. Biopreserve Biobank 20(3):244-59.

Yau L, Soutter K, Ekegren C, Hill KD, Ashe M, **Soh S-E**. (2022) Adherence to exercise programs in community-dwelling older adults post-discharge for hip fracture: a systematic review and meta-analysis. Arch Phys Med Rehabil S0003-9993(22):00203-9. Zadro JR, Jones C, Harris IA, **Buchbinder R, O'Connor D**, McCaffery K, Thompson R, Karunaratne S, Teng MJ, Maher C, Hoffmann T. (2021) Development of a patient decision aid on subacromial decompression surgery and rotator cuff repair surgery: an international mixed-methods study. BMJ Open 11(8):e054032.

Zadro JR, Michaleff ZA, O'Keeffe M, Ferreira GE, **Haas R**, Harris IA, **Buchbinder R**, Maher CG. (2022) How do people perceive different labels for rotator cuff disease? A content analysis of data collected in a randomised controlled experiment. BMJ Open 11(12):e052092.

Zadro JR, Rischin A, **Johnston R, Buchbinder R**. (2021) Imageguided glucocorticoid injection versus injection without image guidance for shoulder pain (Updated review). Cochrane Database Sys Rev 8:CD009147.

Zadro JR, Karunaratne S, Harris IA, Jones CMP, O'Keeffe M, Ferreira GE, **Buchbinder R**, McCaffery K, Thompson R, Maher CG, Hoffmann T. (2022) The impact of a patient decision aid on intention to undergo surgery for subacromial pain syndrome: An online randomised controlled trial. Pat Educ Counsel doi: 10.1016/j.pec.2022.05.005.

### DEPARTMENT OF UROLOGY

Anderson E, Smyth LML, O'Sullivan R, Ryan A, Lawrentschuk N, **Grummet J**, See AW. (2021) Focal low dose-rate brachytherapy for low to intermediate risk prostate cancer: preliminary experience at an Australian institution. Transl Androl Urol 10(9):3591-3603. doi: 10.21037/tau-21-508.

Bensley JG, Dhillon HM, Evans SM, Evans M, Bolton D, Davis ID, Dodds L, **Frydenberg M**, Kearns P, Lawrentschuk M, Murphy DG, Millar JL, Papa N (2021). Self-reported lack of energy or feeling depressed 12 months after treatment in men diagnosed with prostate cancer within a population-based registry. Psycho-Oncology 31;496-503. doi: 10.1002/pon/5833.

Cmero M, Kurganovs NJ, Stuchbery R, McCoy P, Grima C, Ngyuen A, Chow K, Mangiola S, Macintyre G, Howard N, Kerger M, Dundee P, Ruljancich P, Clarke D, **Grummet J**, Peters JS, Costello AJ, Norden S, Ryan A, Parente P, Hovens CM, Corcoran NM. (2021) Loss of SNAI2 in Prostate Cancer Correlates With Clinical Response to Androgen Deprivation Therapy. JCO Precis Oncol 5:PO.20.00337. doi: 10.1200/PO.20.00337.

Dunn J, Green A, Ralph N, Newton RU, Kneebone A, **Frydenberg M**, Chambers SK (2021). Prostate cancer survivorship essentials framework: guidelines for practitioners. BJU Int 128 Suppl 3: 18-29. doi: 10.1111/bju.15159.

Emmett L, Buteau J, Papa N, Moon D, Thompson J, Roberts MJ, Rasiah K, Pattison DA, Yaxley J, Thomas P, Hutton AC, Agrawal S, Amin A, Blazevski A, Chalasani V, Ho B, Nguyen A, Liu V, Lee J, Sheehan-Dare G, Kooner R, Coughlin G, Chan L, Cusick T, Namdarian B, Kapoor J, Alghazo O, Woo HH, Lawrentschuk N, Murphy D, Hofman MS, Stricker P. (2021) The Additive Diagnostic Value of Prostate-specific Membrane Antigen Positron Emission
Guidelines Version 12:222 September 10, 2021. Eur droft 49, 2021. Eur droft 49,

Tomography Computed Tomography to Multiparametric Magnetic Resonance Imaging Triage in the Diagnosis of Prostate Cancer (PRIMARY): A Prospective Multicentre Study. Eur Urol 80(6):682-689. doi: 10.1016/j.eururo.2021.08.002.

Emmett LM, Papa N, Buteau J, Ho B, Liu V, Roberts M, Thompson J, **Moon D**, Sheehan-Dare G, Alghazo O, Agrawal S, Murphy DG, Stricker P, Hope TA, Hofman M. (2022) The PRIMARY Score: Using intra-prostatic PSMA PET/CT patterns to optimise prostate cancer diagnosis. J Nucl Med jnumed.121.263448. doi: 10.2967/jnumed.121.263448.

**Frydenberg M** (2021). A Phase 2/3 Prospective Multicenter Study of the Diagnostic Accuracy of Prostate Specific Membrane Antigen PET/CT With 18F-DCFPyL in Prostate Cancer Patients (OSPREY). PracticeUpdate website. Commentary. Link: https:// www.practiceupdate.com/content/diagnostic-accuracy-ofprostate-specific-membrane-antigen-18f-dcfpyl-petct-inprostate-cancer-patients/119929/65/3/1.

Gillessen S, Armstrong A, Attard G, Beer TM, Beltra H, Bjartell A, Bossi A, Briganti A, Bristow RG, Bulbul M, Caffo O, Chi KN, Clarke CS, Clarke N, Davis ID, de Bono JS, Duran I, Eeles R, Efstathiou E, Efstathiou J, Ekeke ON, Evans CP, Fanti S, Feng FY, Fizazi K, Frydenberg M, George D, Gleave M, HalabiS, Heinrich D, Higano C, Hofman MS, Hussain M, James N, Jones R, Kanesvaran R, Khauli RB, Klotz L, Leibowitz R, Logothetis C, Maluf F, Millman R, Morgans AK, Morris MJ, Mottet N, Mrabti H, Murphy DG, Murthy V, Oh WK, Ost P, O'Sullivan JM, Padhani AR, Parker C, Poon DMC, Pritchard CC, Rabah DM, Rathkopf D, Reiter RE, Rubin M, Ryan CJ, Saad F, Sade JP, Sarot O, Scher HI, Shore N, Skoneczna I, Small E, Smith M, Soule H, Spratt DE, Sternberg CN, Suzuki H, Sweeney C, Sydes MR, Tapli M-E, Tilki D, Tombal B, Türkeri L, Uemura H, Uemura H, van Oort I, Yamoah K, Ye D, Zapatero A, Omlin A (2022). Management of Patients with Advanced Prostate Cancer: Report from the Advanced Prostate Cancer Consensus Conference 2021. European Urology 82(1):115-141. doi: 10.1016/j. eururo.2022.04.002.

Gondoputro W, Thompson J, Evans M, Bolton D, **Fydenberg M**, Murphy DG, Haynes AM, Agrawal S, Stricker P, Papa N (2022). How Does Age Affect Urinary Continence following Robot-Assisted Radical Prostatectomy? A Prospective Multi-Institutional Study Using Independently Collected, Validated Questionnaires. J Urol 207(5):1048-1056. doi: 10.1097/JU.00000000002391.

**Grummet JP**, Mottet N, Gorin MA. (2021) TREXIT Is Now: Should We Abandon the Transrectal Route for Prostate Biopsy? Yes. Eur Urol Open Sci 31:14-16. doi: 10.1016/j.euros.2021.06.009.

**Grummet J**, Eggener S. (2022) Re: NCCN Prostate Cancer Guidelines Version 1.2022 - September 10, 2021. Eur Urol 81(2):218. doi: 10.1016/j.eururo.2021.11.025.



phase 3 double-blind placebo-controlled randomized trial of methoxyflurane with periprostatic local anaesthesia to reduce the discomfort of transrectal ultrasound-guided prostate biopsy (ANZUP 1501). BJU International 129(5):591-600. doi:10.1111/ bju.15552.

Kannan A, Clouston D, **Frydenberg M**, Ilic D, Karim N, Evans SM, Toivanen R, Risbridger GP, Taylor RA (2021). Neuroendocrine cells in prostate cancer correlate with poor outcomes: A systematic review. BJU Int doi: 10.1111/bju.15647

Kavoor JG, Jacobsen JH, Duncan J, Addo AA, Tivey DR, Babidge WJ, Penn D, Churchill J, Collinson TG, Kok J, Kelly S, Lu VH, Beavis VS, MacCormick AD, Kearney BJ, Gowans EJ, Hewett PJ, Hugh TJ, Woo HH, Padbury RT, Scott DA, **Frydenberg M**, Maddern GJ (2022). Achieving safe surgery after COVID-19 vaccination. ANZ J Surg 92(5):946-949. doi: 10.1111/ans.17654.

Lawrence MG, Porter LH, Choo N, Pook D, **Grummet JP**, Pezaro CJ, Sandhu S, Ramm S, Luu J, Bakshi A, Goode DL, Sanij E, Pearson RB, Hannan RD, Simpson KJ, Taylor RA, Risbridger GP, Furic L. (2021) CX-5461 Sensitizes DNA Damage Repair-proficient Castrate-resistant Prostate Cancer to PARP Inhibition. Mol Cancer Ther 20(11):2140-2150. doi: 10.1158/1535-7163.MCT-20-0932.

Olivier J, Li W, Nieboer D, Helleman J, Roobol M, Gnanapragasam V, **Frydenberg M**, Sugimoto M, Carroll P, Morgan TM, Valdagni E, Rubio-Briones J, Robert G, Stricker P, Hayen A, Schoots I, Haider M, Moore CM, Denton B, Villers A (2022). Prostate Cancer Patients Under Active Surveillance with a Suspicious Magnetic Resonance Imaging Finding Are at Increased Risk of Needing Treatment: Results of the Movember Foundation's Global Action Plan Prostate Cancer Active Surveillance (GAP3) Consortium. European Urology Open Science 35: 59-67. doi: 10.1016/j.euros.2021.11.06

O'Brien JS, McVey A, Kelly BD, Jenjitranant P, Buteau J, Hofman MS, Kasivisvanithan V, Eapen R, **Moon D**, Murphy DG, Lawrentschuk N. (2022) Prostate-specific membrane antigen positron emission tomography/computed tomography funding grants free access to superior staging for Australian men with prostate cancer. BJU Int doi: 10.1111/bju.15773.

Ong S, Chen K, **Grummet J**, Yaxley J, Scheltema MJ, Stricker P, Tay KJ, Lawrentschuk N. (2022) Guidelines of guidelines: Focal therapy for prostate cancer, is it time for consensus? BJU Int doi: 10.1111/bju.15883.

Ptasznik G, Papa N, Kelly BD, Thompson J, Stricker P, Roberts MJ, Hofman MS, Buteau J, Murphy DG, Emmett L, **Moon D**. (2022) High prostate-specific membrane antigen (PSMA) positron emission tomography (PET) maximum standardized uptake value in men with PI-RADS score 4 or 5 confers a high probability of significant prostate cancer. BJU Int doi: 10.1111/bju.15736.

Remmers S, Helleman J, Nieboer D, Trock B, Hyndman ME, Moore CM, Gnanapragasam V, Shiong Lee L, Elhage O, Klotz L, Carroll P, Pickles T, Bjartell A, Robert G, **Frydenberg M**, Sugimoto M, Ehdaie B, Morgan TM, Rubio-Briones J, Semjonow A, Bangma CH, Roobol MJ; Movember Foundation's Global Action Plan Prostate Cancer Active Surveillance (GAP3) Consortium (2022). Active Surveillance for Men Younger than 60 Years or with Intermediate-risk Localized Prostate Cancer. Descriptive Analyses of Clinical Practice in the Movember GAP3 Initiative. Eur Urol Open Sci 41:126-133. doi: 10.1016/j.euros.2022.05.012. eCollection 2022 Jul.

Risbridger G, Clark A, Porter L, Toivanen R, Bakshi A, Lister N, Pook D, Pezaro C, Sandhu S, Keerthikumar S, Urban RQ, Papargiris M, Kraska J, Madsen H, Wang H, Richard M, Niranjan B, O'Dea S, Teng L, Wheeland W, Li Z, Choo N, Ouyang J, Thorne H, Devereux L, Hicks R, Sengupta S, Harewood L, Iddawala M, Azad A, Goad J, **Grummet J**, Kourambas H, Kwan E, **Moon D**, Murphy D, Pedersen J, Clouston D, Norden S, Ryan A, Furic L, Goode D, **Frydenberg M**, Lawrence M, Taylor R (2021). The MURAL collection of prostate cancer patient-derived xenografts enables discovery through preclinical models of uro-oncology. Nature Communications 12(1):5049. doi: 10.1038/s41467-021-25175-5

Sauer JS, Mayer KJ, Lee C, Alves MR, Amiri S, Bahaveolos CJ, Franklin EB, Crocker DR, Dang D, Dinasquet J, Garofalo LA, Kaluarachchi CP, Kilgour DB, Mael LE, Mitts BA, **Moon DR**, Moore AN, Morris CK, Mullenmeister CA, Ni CM, Pendergraft MA, Petras D, Simpson RMC, Smith S, Tumminello PR, Walker JL, DeMott PJ, Farmer DK, Goldstein AH, Grassian VH, Jaffe JS, Malfatti F, Martz TR, Slade JH, Tivanski AV, Bertram TH, Cappa CD, Prather KA. (2022) The Sea Spray Chemistry and Particle Evolution study (SeaSCAPE): overview and experimental methods. Environ Sci Process Impacts 24(2):290-315. doi: 10.1039/d1em00260k.

Siva S, Bressel M, Wood ST, Shaw MG, Loi S, Sandhu SK, Tran B, A Azad A, Lewin JH, Cuff KE, Liu HY, **Moon D**, Goad J, Wong LM, LimJoon M, Mooi J, Chander S, Murphy DG, Lawrentschuk N, Pryor D. (2022) Stereotactic Radiotherapy and Short-course Pembrolizumab for Oligometastatic Renal Cell Carcinoma-The RAPPORT Trial. Eur Urol 81(4):364-372. doi: 10.1016/j. eururo.2021.12.006.

Smith SM, Jacobsen JHW, Atlas AP, Khoja A, Kavoor JG, Tivey DR, Babidge WJ, Clancy B, Jacobson E, O'Neill C, North JB, Wu R, Maddern GJ, **Frydenberg M** (2021). Telehealth in Surgery: An Umbrella Review. ANZ Journal of Surgery 91(11):2360-2375. doi: 10.1111/ans.17217

Stockler MR, Martin AJ, Davis ID, Dhillon HM, Begbie SD, Chi KN, Chowdhury S, Coskinos X, **Frydenberg M**, Hague WE, Howvarth LG, Joshua AM, Lawrence NJ, Marx GM, McCaffrey J, McDermott R, McJannett M, North SA, Parnis Fm Parulekar WR, Pook DW, Reaume MN, Sandhu S, Tan A, Tan TH, Thomson A, Vera-Badillo F, Williams SG, Winter DG, Yip S, Zhang AY, Zielinski RR, Sweeney CJ, ENZAMET Trial Investigators and the Australian and New Zealand Urogenital and Prostate Cancer Trials Group (ANZUP) (2021). Health-Related Quality of Life in Metastatic Hormone-Sensitive Prostate Cancer: ANZAMET (ANZUP 1304), and International, Randomized Phase III Trial Led by ANZUP. Journal of Clinical Oncology 40(8):837. doi 10.1200/JCO.21.00941 Tan JS, Sathianathen N, Cumberbatch M, Dasgupta P, Mottrie A, Abaza R, Ho Rha K, Yuvaraja TB, Parekh DJ, Capitanio U, Ahlawat R, Rawal S, Buffi NM, Sivaraman A, Maes KK, Gautam G, Porpiglia F, Turkeri L, Bhandari M, Challacombe B, Roscoe Porter J, Rogers CR, **Moon DA**. (2021) Outcomes in robot-assisted partial nephrectomy for imperative vs elective indications. BJU Int 2021 Dec;128 Suppl 3:30-35. doi: 10.1111/bju.15581.

Turco F, Armstrong A, Attard G, Beer TM, Beltran H, Bjartell A, Bossi A, Briganti A, Bristow RG, Bulbul M, Caffo O, Chi KN, Clarke CS, Clarke N, Davis ID, de Bono J, Duran I, Eeles E, Efstathiou E, Efstathiou J, Evans CP, Fanti S, Feng FY, Fizazi K, Frydenberg M, George D, Gleave M, Halabi S, Heinrich D, Higano C, Hofman MS, Hussain M, James N, Jones R, Kanesvaran R, Khauli RB, Klotz L, Leibowitz R, Logothetis C, Maluf F, Millman R, Morgans AK, Morris MJ, Mottet N, Mrabti H, Murphy DG, Murthy V, Oh WK, Ekeke ON, Ost P, O'Sullivan JM, Padhani AR, Parker C, Poon DMC, Pritchard CC, Rabah DM, Rathkopf D, Reiter RE, Rubin M, Ryan CJ, Saad F, Sade JP, Sartor O, Scher HI, Shore N, Skoneczna I, Small E, Smith M, Soule H, Spratt DE, Sternberg CN, Suzuki H, Sweeney C, Sydes MR, Taplin M-E, Tilki D, Tombal B, Türkeri L, Eumura H, Uemura H, van Oort I, Yamoah K, Ye D, Zapatero A, Gillessen S, Omlin A (2022). What Expert Think About Prostate Cancer Management During the COVID-19 Pandemic: Report from the Advanced Prostate Cancer Consensus Conference 2021. European Urology 82(1):e18-e19. doi: 10.1016/j. eururo.2022.04.004.

Trigos AS, Pasam A, Banks P, Wallace R, Guo C, Keam S, Thorne H; kConFab, Mitchell C, Lade S, Clouston D, Hakansson A, Liu Y, Blyth B, Murphy D, Lawrentschuk N, Bolton D, **Moon D**, Darcy P, Haupt Y, Williams SG, Castro E, Olmos D, Goode D, Neeson P, Sandhu S. (2022) Tumor immune microenvironment of primary prostate cancer with and without germline mutations in homologous recombination repair genes. J Immunother Cancer 10(6):e003744. doi: 10.1136/jitc-2021-003744.

Willemse PM, Davis NF, Grivas N, Zattoni F, Lardas M, Briers E, Cumberbatch MG, De Santis M, Dell'Oglio P, Donaldson JF, Fossati N, Gandaglia G, Gillessen S, **Grummet JP**, Henry AM, Liew M, MacLennan S, Mason MD, Moris L, Plass K, O'Hanlon S, Omar MI, Oprea-Lager DE, Pang KH, Paterson CC, Ploussard G, Rouvière O, Schoots IG, Tilki D, van den Bergh RCN, Van den Broeck T, van der Kwast TH, van der Poel HG, Wiegel T, Yuan CY, Cornford P, Mottet N, Lam TBL. (2022) Systematic Review of Active Surveillance for Clinically Localised Prostate Cancer to Develop Recommendations Regarding Inclusion of Intermediate-risk Disease, Biopsy Characteristics at Inclusion and Monitoring, and Surveillance Repeat Biopsy Strategy. Eur Urol 81(4):337-346. doi: 10.1016/j.eururo.2021.12.007.

Xue AL, Kalapara AA, Ballok ZE, Levy SM, Sivaratnam D, Ryan A, Ramdave S, O'Sullivan R, Moon D Grummet JP, Frydenberg M (2022). 68Ga-Prostate-Specific Membrane Antigen Positron Emission Tomography Maximum Standardized Uptake Value as a Predictor of Gleason Pattern 4 and Pathological Upgrading in Intermediate-Risk Prostate Cancer. J Urol 207(2):341-349. doi: 10.1097/JU.00000000002254. Yates P, Cater R, Cockerell R, Cowan D, Dixon C, Lal A, Newton RU, Hart N, Galvão DA, Baguley B, Denniston N, Skinner T, Couper J, Emery J, **Frydenberg M**, Liu W-H (2022). Evaluating a multicomponent survivorship programme for men with prostate cancer in Australia: a single cohort study. BMJ Open 12(2):e049802. doi: 10.1136/bmjopen-2021-049802.

Yaxley WJ, McBean R, Wong D, Grimes D, Vasey P, **Frydenberg M**, Yaxley JW (2021). Should Lutetium-prostate specific membrane antigen radioligand therapy for metastatic prostate cancer be used earlier in men with lymph node only metastatic prostate cancer? Investigative and Clinical Urology 62(6):650-657. doi: 10.4111/icu.20210097.

### DEPARTMENT OF CARDIOLOGY RESEARCH

Al-Mukhtar O, Vogrin S, Lampugnani ER, Noaman S, Dinh DT, Brennan AL, Reid C, **Lefkovits J**, Cox N, **Stub D**, Chan W. (2022) Temporal Changes in Pollen Concentration Predict Short-Term Clinical Outcomes in Acute Coronary Syndromes. J Am Heart Assoc 11(7):e023036. doi: 10.1161/JAHA.121.023036.

Batchelor RJ, Dinh D, Noaman S, Brennan A, Clark D, Ajani A, Freeman M, **Stub D**, Reid CM, Oqueli E, Yip T, **Shaw J**, Walton A, Duffy SJ, Chan W. (2022) Adverse 30-Day Clinical Outcomes and Long-Term Mortality Among Patients With Preprocedural Atrial Fibrillation Undergoing Percutaneous Coronary Intervention. Heart Lung Circ 31(5):638-646. doi: 10.1016/j.hlc.2021.12.013.

Biswas S, Dinh D, Duffy SJ, Brennan A, Liew D, Chan W, Cox N, Reid CM, **Lefkovits J, Stub D**. (2022) Characteristics and outcomes of unsuccessful percutaneous coronary intervention. Catheter Cardiovasc Interv 99(3):609-616. doi: 10.1002/ ccd.29886.

Bloom JE, Andrew E, Nehme Z, Dinh DT, Fernando H, Shi WY, Vriesendorp P, Nanayakarra S, Dawson LP, Brennan A, Noaman S, Layland J, William J, Al-Fiadh A, Brooks M, Freeman M, Hutchinson A, McGaw D, Van Gaal W, Willson W, White A, Prakash R, Reid C, **Lefkovits J**, Duffy SJ, Chan W, Kaye DM, Stephenson M, Bernard S, Smith K, **Stub D**. (2021) Pre-hospital heparin use for ST-elevation myocardial infarction is safe and improves angiographic outcomes. Eur Heart J Acute Cardiovasc Care 10(10):1140-1147. doi: 10.1093/ehjacc/zuab032.

Bloom JE, Andrew E, Dawson LP, Nehme Z, Stephenson M, Anderson D, Fernando H, Noaman S, Cox S, Milne C, Chan W, Kaye DM, Smith K, **Stub D**. (2022) Incidence and Outcomes of Nontraumatic Shock in Adults Using Emergency Medical Services in Victoria, Australia. JAMA Netw Open 5(1):e2145179. doi: 10.1001/jamanetworkopen.2021.45179.

Blusztein D, Dinh D, **Stub D**, Dawson L, Brennan A, Reid C, Smith K, Nehme Z, Andrew E, Bernard S, **Lefkovits J**. (2022) Predictors of hospital prenotification for STEMI and association of prenotification with outcomes. Emerg Med J 39(9):666-671. doi: 10.1136/emermed-2020-210522.

Boehm E, **Better N**. (2021) Time is Myocardium, but Who Does Best? J Nucl Cardiol doi: 10.1007/s12350-021-02820-6.



Cartledge S, Driscoll A, Dinh D, O'Neil A, Thomas E, Brennan AL, Liew D, **Lefkovits J, Stub D**. (2022) Trends and Predictors of Cardiac Rehabilitation Referral Following Percutaneous Coronary Intervention: A Prospective, Multi-Site Study of 41,739 Patients From the Victorian Cardiac Outcomes Registry (2017-2020). Heart Lung Circ 31(9):1247-1254. doi: 10.1016/j.hlc.2022.04.050.

Case R, **Stub D**, Mazzagatti E, Pryor H, Mion M, Ball J, Cartledge S, Keeble TR, Bray JE, Smith K. (2021) The second year of a second chance: Long-term psychosocial outcomes of cardiac arrest survivors and their family. Resuscitation 167:274-281. doi: 10.1016/j.resuscitation.2021.06.018.

Cerci RJ, Vitola JV, Paez D, Zuluaga A, Bittencourt MS, Sierra-Galan LM, Carrascosa P, Campisi R, Gutierrez-Villamil C, Peix A, Chambers D, Velez MS, Alvarado CMG, Ventura ACF, Maldonado A, Castanos AP, Diaz TC, Herrera Y, Vasquez MC, Arrieta AA, Mut F, Hirschfeld C, Malkovskiy E, Goebel B, Cohen Y, Randazzo M, Shaw LJ, Williams MC, Villines TC, **Better N**, Dorbala S, Raggi P, Pascual TNB, Pynda Y, Dondi M, Einstein AJ. (2022) The Impact of COVID-19 on Diagnosis of Heart Disease in Latin America an INCAPS COVID Sub-analysis. Arq Bras Cardiol 118(4):745-753. doi: 10.36660/abc.20210388.

Chan RK, Dinh DT, Hare DL, Lockwood S, Neil C, Prior D, Brennan A, **Lefkovits J**, Carruthers H, Reid CM, Driscoll A; VCOR-HF Investigators. (2022) Management of Acute Decompensated Heart Failure in Rural Versus Metropolitan Settings: An Australian Experience. Heart Lung Circ 31(4):491-498. doi: 10.1016/j. hlc.2021.08.020.

Chieng D, **Kistler PM**. (2021) Coffee and tea on cardiovascular disease (CVD) prevention. Trends Cardiovasc Med S1050-1738(21)00088-8. doi: 10.1016/j.tcm.2021.08.004.

Chieng D, **Kistler PM**. (2022) The Authors' Reply. JACC Clin Electrophysiol 8(3):385. doi: 10.1016/j.jacep.2022.01.022.

Chieng D, Sugumar H, Kaye D, Azzopardi S, Vizi D, Rossi E, Voskoboinik A, Prabhu S, Ling LH, Lee G, Kalman JM, Kistler PM. (2021) Prone and Supine 12-Lead ECG Comparisons: Implications for Cardiac Assessment During Prone Ventilation for COVID-19. JACC Clin Electrophysiol 7(11):1348-1357. doi: 10.1016/j. jacep.2021.04.011.

Chieng D, Sugumar H, Ling LH, Segan L, Azzopardi S, Prabhu S, Al-Kaisey A, **Voskoboinik A**, Parameswaran R, Morton JB, Pathik B, McLellan AJ, Lee G, Wong M, Finch S, Pathak RK, Raja DC, Sanders P, Sterns L, Ginks M, Reid CM, Kalman JM, **Kistler PM**. (2022) Catheter ablation for persistent atrial fibrillation: A multicenter randomized trial of pulmonary vein isolation (PVI) versus PVI with posterior left atrial wall isolation (PWI) - The CAPLA study. Am Heart J 243:210-220. doi: 10.1016/j. ahj.2021.09.015.

Cole J, Beare R, Phan T, Srikanth V, **Stub D**, Smith K, Murdoch K, Layland J. (2022) Modelling STEMI service delivery: a proof of concept study. Emerg Med J 39(9):701-707. doi: 10.1136/emermed-2020-210334.

Dagan M, Dinh DT, Stehli J, Zaman S, Brennan A, Tan C, Liew D, Reid CM, **Stub D**, Kaye DM, **Lefkovits J**, Duffy SJ; Victorian Cardiac Outcomes Registry. (2021) Impact of Age and Sex on Treatment and Outcomes Following Myocardial Infarction. J Am Coll Cardiol 78(19):1934-1936. doi: 10.1016/j.jacc.2021.08.057.

Dawson LP, Dinh DT, **Stub D**, Ahern S, Bloom JE, Duffy SJ, **Lefkovits J**, Brennan A, Reid CM, Oqueli E; Victorian Cardiac Outcomes Registry. (2022) Health-related quality of life following percutaneous coronary intervention during the COVID-19 pandemic. Qual Life Res 31(8):2375-2385. doi: 10.1007/s11136-021-03056-0.

Dawson LP, Smith K, Cullen L, Nehme Z, **Lefkovits J**, Taylor AJ, **Stub D**. (2022) Care Models for Acute Chest Pain That Improve Outcomes and Efficiency: JACC State-of-the-Art Review. J Am Coll Cardiol 79(23):2333-2348. doi: 10.1016/j.jacc.2022.03.380.

Dawson LP, Andrew E, Nehme Z, Bloom J, Liew D, Cox S, Anderson D, Stephenson M, **Lefkovits J**, Taylor AJ, Kaye D, Cullen L, Smith K, **Stub D**. (2022) Development and validation of a comprehensive early risk prediction model for patients with undifferentiated acute chest pain. Int J Cardiol Heart Vasc 40:101043. doi: 10.1016/j.ijcha.2022.101043.

Dawson LP, Andrew E, Nehme Z, Bloom J, Okyere D, Cox S, Anderson D, Stephenson M, **Lefkovits J**, Taylor AJ, Kaye D, Smith K, **Stub D**. (2022) Incidence, diagnoses and outcomes of ambulance attendances for chest pain: a populationbased cohort study. Ann Epidemiol 72:32-39. doi: 10.1016/j. annepidem.2022.04.010.

Dawson LP, Andrew E, Nehme Z, Bloom J, Biswas S, Cox S, Anderson D, Stephenson M, **Lefkovits J**, Taylor AJ, Kaye D, Smith K, **Stub D**. (2022) Association of Socioeconomic Status With Outcomes and Care Quality in Patients Presenting With Undifferentiated Chest Pain in the Setting of Universal Health Care Coverage. J Am Heart Assoc 11(7):e024923. doi: 10.1161/ JAHA.121.024923.

Dawson LP, Andrew E, Stephenson M, Nehme Z, Bloom J, Cox S, Anderson D, **Lefkovits J**, Taylor AJ, Kaye D, Smith K, **Stub D**. (2022) The influence of ambulance offload time on 30-day risks of death and re-presentation for patients with chest pain. Med J Aust 217(5):253-259. doi: 10.5694/mja2.51613.

Dawson LP, Chen D, Dagan M, Bloom J, Taylor A, Duffy SJ, **Shaw J, Lefkovits J, Stub D**. (2021) Assessment of Pretreatment With Oral P2Y12 Inhibitors and Cardiovascular and Bleeding Outcomes in Patients With Non-ST Elevation Acute Coronary Syndromes: A Systematic Review and Meta-analysis. JAMA Netw Open 4(11):e2134322. doi: 10.1001/jamanetworkopen.2021.34322.

Dawson LP, Burchill L, O'Brien J, Dinh D, Duffy SJ, **Stub D**, Brennan A, Clark D, Oqueli E, Hiew C, Freeman M, Reid CM, Ajani AE; Melbourne Interventional Group Investigators. (2021) Differences in outcome of percutaneous coronary intervention between Indigenous and non-Indigenous people in Victoria, Australia: a multicentre, prospective, observational, cohort study. Lancet Glob Health 9(9):e1296-e1304. doi: 10.1016/S2214-109X(21)00224-2. Dawson LP, Biswas S, **Lefkovits J, Stub D**, Burchill L, Evans SM, Reid C, Eccleston D. (2021) Characteristics and Quality of National Cardiac Registries: A Systematic Review. Circ Cardiovasc Qual Outcomes 14(9):e007963. doi: 10.1161/ CIRCOUTCOMES.121.007963.

Dondi M, Milan E, Pontone G, Hirschfeld CB, Williams M, Shaw LJ,
Pynda Y, Raggi P, Cerci R, Vitola J, Better N, Villines TC, Dorbala
S, Pascual TNB, Giubbini R, Einstein AJ, Paez D; INCAPS COVID
Investigators Group. (2021) Reduction of cardiac imaging tests
during the COVID-19 pandemic: The case of Italy. Findings from
the IAEA Non-invasive Cardiology Protocol Survey on COVID-19
(INCAPS COVID). Int J Cardiol 341:100-106. doi: 10.1016/j.
ijcard.2021.08.044.

Eastwood K, Howell S, Nehme Z, Finn J, Smith K, Cameron P, **Stub D**, Bray JE. (2021) Impact of a mass media campaign on presentations and ambulance use for acute coronary syndrome. Open Heart 8(2):e001792. doi: 10.1136/openhrt-2021-001792.

Einstein AJ, Hirschfeld C, Williams MC, Vitola JV, **Better N**, Villines TC, Cerci R, Shaw LJ, Choi AD, Dorbala S, Karthikeyan G, Lu B, Sinitsyn V, Ansheles AA, Kudo T, Bucciarelli-Ducci C, Nørgaard BL, Maurovich-Horvat P, Campisi R, Milan E, Louw L, Allam AH, Bhatia M, Sewanan L, Malkovskiy E, Cohen Y, Randazzo M, Narula J, Morozova O, Pascual TNB, Pynda Y, Dondi M, Paez D; INCAPS COVID 2 Investigators Group. (2022) Worldwide Disparities in Recovery of Cardiac Testing 1 Year Into COVID-19. J Am Coll Cardiol 79(20):2001-2017. doi: 10.1016/j. jacc.2022.03.348.

Fernando H, McFadyen JD, Wang X, **Shaw J, Stub D**, Peter K. (2022) P2Y12 Antagonists in Cardiovascular Disease-Finding the Best Balance Between Preventing Ischemic Events and Causing Bleeding. Front Cardiovasc Med 9:854813. doi: 10.3389/ fcvm.2022.854813.

Fernando H, Duong T, Huynh K, Noonan J, **Shaw J**, Duffy SJ, Nehme Z, Smith K, Myles PS, Meikle PJ, Peter K, **Stub D**. (2021) Effects of lignocaine vs. opioids on antiplatelet activity of ticagrelor: the LOCAL trial. Eur Heart J 42(39):4025-4036. doi: 10.1093/eurheartj/ehab557.

Fernando H, Nehme Z, Dinh D, Andrew E, Brennan A, Shi W, Bloom J, Duffy SJ, **Shaw J**, Peter K, Nadurata V, Chan W, Layland J, Freeman M, Van Gaal W, Bernard S, **Lefkovits J**, Liew D, Stephenson M, Smith K, **Stub D**. (2022) Impact of prehospital opioid dose on angiographic and clinical outcomes in acute coronary syndromes. Emerg Med J emermed-2021-211519. doi: 10.1136/emermed-2021-211519.

Fernando H, Nehme Z, Peter K, Bernard S, Stephenson M, Bray JE, Myles PS, Stub R, Cameron P, Ellims AH, Taylor AJ, Kaye DM, Smith K, **Stub D**. (2021) Association between pre-hospital chest pain severity and myocardial injury in ST elevation myocardial infarction: A post-hoc analysis of the AVOID study. Int J Cardiol Heart Vasc 37:100899. doi: 10.1016/j.ijcha.2021.100899.

Fernando H, Duffy SJ, Low A, Dinh D, Adrianopoulos N, Sharma A, Peter K, **Stub D**, Leong K, Ajani A, Clark D, Freeman M,

Sebastian M, Brennan A, Selkrig L, Reid CM, Kaye D, Oqueli E. (2021) Totally Occluded Culprit Coronary Artery in Patients with Non-ST-Elevation Myocardial Infarction Undergoing Percutaneous Coronary Intervention. Am J Cardiol 156:52-57. doi: 10.1016/j.amjcard.2021.06.043.

Hawson J, Anderson RD, Al-Kaisey A, Chieng D, Segan L, Watts T, Campbell T, Morton J, McLellan A, **Kistler P, Voskoboinik A**, Pathik B, Kumar S, Kalman J, Lee G. (2022) Functional Assessment of Ventricular Tachycardia Circuits and Their Underlying Substrate Using Automated Conduction Velocity Mapping. JACC Clin Electrophysiol 8(4):480-494. doi: 10.1016/j.jacep.2021.12.013.

Higuchi S, **Voskoboinik A**, Goldberger JJ, Nazer B, Dewland TA, Danon A, Belhassen B, Tchou PJ, Scheinman MM. (2021) Arrhythmias Utilizing Concealed Nodoventricular or His-Ventricular Pathways: A Structured Approach to Diagnosis and Management. JACC Clin Electrophysiol 7(12):1588-1599. doi: 10.1016/j.jacep.2021.05.010.

Higuchi S, Tchou PJ, **Voskoboinik A**, Goldberger JJ, Nazer B, Dewland TA, Danon A, Belhassen B, Scheinman MM. (2021) Reply: Multiform Ventricular Tachycardia With Conduction System Participation: Is There a Fourth-Limb of the His. JACC Clin Electrophysiol 7(12):1626-1627. doi: 10.1016/j.jacep.2021.10.007.

Kaye DM, Vizi D, Graham S, Wang B, Shihata W, Nanayakkara S, Mariani J, **Premaratne M**. (2022) Physiologic Insights Into Long COVID Breathlessness. Circ Heart Fail 15(6):e009346. doi: 10.1161/CIRCHEARTFAILURE.121.009346.

Kempster K, Howell S, Bernard S, Smith K, Cameron P, Finn J, **Stub D**, Morley P, Bray J. (2021) Out-of-hospital cardiac arrest outcomes in emergency departments. Resuscitation 166:21-30. doi: 10.1016/j.resuscitation.2021.07.003.

Kistler PM, Chieng D, Tonchev IR, Sugumar H, Voskoboinik A, Schwartz LA, McLellan AJ, Prabhu S, Ling LH, Al-Kaisey A, Parameswaran R, Anderson RD, Lee G, Kalman JM. (2021) P-Wave Morphology in Focal Atrial Tachycardia: An Updated Algorithm to Predict Site of Origin. JACC Clin Electrophysiol 7(12):1547-1556. doi: 10.1016/j.jacep.2021.05.005.

Koh Y, **Voskoboinik A**, Neil C. (2022) Arrhythmias and Their Electrophysiological Mechanisms in Takotsubo Syndrome: A Narrative Review. Heart Lung Circ 31(8):1075-1084. doi: 10.1016/j. hlc.2022.03.010.

Lee JC, **Better N**. (2021) Tc-99m HMDP versus MDP discrepancy in cardiac amyloidosis. J Nucl Cardiol 28(5):2424. doi: 10.1007/s12350-021-02763-y.

Lee P, Liew D, Brennan A, Stub D, Lefkovits J, Reid CM, Zomer



E. (2021) Cost-effectiveness of Radial Access Percutaneous Coronary Intervention in Acute Coronary Syndrome. Am J Cardiol 156:44-51. doi: 10.1016/j.amjcard.2021.06.034.

Lee P, Brennan AL, **Stub D**, Dinh DT, **Lefkovits J**, Reid CM, Zomer E, Liew D. (2021) Estimating the economic impacts of percutaneous coronary intervention in Australia: a registrybased cost burden study. BMJ Open 11(12):e053305. doi: 10.1136/ bmjopen-2021-053305.

Lee P, Brennan A, Dinh D, **Stub D, Lefkovits J**, Reid CM, Zomer E, Chin K, Liew D. (2022) The cost-effectiveness of radial access percutaneous coronary intervention: A propensity-score matched analysis of Victorian data. Clin Cardiol 45(4):435-446. doi: 10.1002/clc.23798.

Leong CL, Teoh TW, Bentley L, O'Rourke E, Allright A, Werkmeister M, Bickell A, Htun NM, **Premaratne M**. (2022) Resource implications following expansion of computed tomography coronary angiography: An Australian experience. J Med Imaging Radiat Oncol 66(5):623-627. doi: 10.1111/1754-9485.13331.

Lu CW, Wang JK, Yang HL, Kovacs AH, Luyckx K, Ruperti-Repilado FJ, Van De Bruaene A, Enomoto J, Sluman MA, Jackson JL, Khairy P, Cook SC, Chidambarathanu S, Alday L, Oechslin E, Eriksen K, Dellborg M, Berghammer M, Johansson B, Mackie AS, **Menahem S**, Caruana M, Veldtman G, Soufi A, Fernandes SM, White K, Callus E, Kutty S, Apers S, Moons P; APPROACH IS consortium, the International Society for Adult Congenital Heart Disease (ISACHD) \*. (2022) Heart Failure and Patient-Reported Outcomes in Adults With Congenital Heart Disease from 15 Countries. J Am Heart Assoc 11(9):e024993. doi: 10.1161/ JAHA.121.024993.

**Menahem S.** (2022) Invited Commentary: Congenital Heart-A Success Story: What About the Mothers? World J Pediatr Congenit Heart Surg 13(3):332-333. doi: 10.1177/21501351221090131.

Menahem S, Lefkovits J. (2021) Major Complication Following Kawasaki Disease in an Infant-The Development of Apical Infarction and Aneurysm Formation. Children (Basel) 8(11):981. doi: 10.3390/children8110981.

Moore BM, **Kistler PM**. (2021) To blank or not to blank - that is the question: Time to shorten the blanking period after AF ablation. Int J Cardiol 343:53-54. doi: 10.1016/j.ijcard.2021.09.025.

Mundisugih J, Gao CX, Ikin JF, Abramson MJ, Brown D, Biswas S, Dewar EM, Liew D, **Stub D**. (2022) Vascular Responses Among Adults Four Years Post Exposure to 6 Weeks of Smoke from the Hazelwood Coal Mine Fire. Vasc Health Risk Manag 18:253-265. doi: 10.2147/VHRM.S339439.

Murphy AC, Dinh D, Koshy AN, **Lefkovits J**, Clark DJ, Zaman S, Duffy SJ, Brennan A, Reid C, Yudi MB; Victorian Cardiac Outcomes Registry. (2021) Comparison of Long-Term Outcomes in Men versus Women Undergoing Percutaneous Coronary Intervention. Am J Cardiol 153:1-8. doi: 10.1016/j. amjcard.2021.05.013. Nan Tie E, Fernando H, Nehme Z, Dinh D, Andrew E, Brennan A, Zaman S, Liew D, Stephenson M, **Lefkovits J**, Peter K, Duffy SJ, **Shaw J**, Smith K, **Stub D**. (2022) Sex differences in prehospital analgesia in patients presenting with acute coronary syndromes and their association with clinical outcomes. Catheter Cardiovasc Interv 99(4):989-995. doi: 10.1002/ccd.30104.

Navani RV, Quine EJ, Duffy SJ, Htun NM, Nanayakkara S, Walton AS, **Stub D**. (2022) Relation of Preprocedure Plateletto-Lymphocyte Ratio and Major Adverse Cardiovascular Events Following Transcatheter Aortic Valve Implantation for Aortic Stenosis. Am J Cardiol 163:65-70. doi: 10.1016/j. amjcard.2021.10.008.

Navani RV, Koh Y, **Voskoboinik A**. (2021) Syncope in a young male. Eur Heart J Case Rep 5(11):ytab458. doi: 10.1093/ehjcr/ ytab458.

Nehme Z, **Stub D**. (2022) Triage of post-cardiac arrest patients: To PCI or not to PCI, that is the question. Resuscitation 170:335-338. doi: 10.1016/j.resuscitation.2021.11.013.

Nitzan I, Hammerman C, **Menahem S**, Sehgal A. (2022) Mitral valve Doppler for cardiac output assessment in preterm neonates. Echocardiography 39(5):717-723. doi: 10.1111/ echo.15356.

Noaman S, Vogrin S, Dinh D, **Lefkovits J**, Brennan AL, Reid CM, Walton A, Kaye D, Bloom JE, **Stub D**, Yang Y, French C, Duffy SJ, Cox N, Chan W; VCOR Investigators. (2022) Percutaneous Coronary Intervention Volume and Cardiac Surgery Availability Effect on Acute Coronary Syndrome-Related Cardiogenic Shock. JACC Cardiovasc Interv 15(8):876-886. doi: 10.1016/j. jcin.2022.01.283.

Nogic J, Nerlekar N, Soon K, Freeman M, Chan J, Roberts L, Brenan A, Dinh D, **Lefkovits J**, Brown AJ. (2022) Diabetes mellitus is independently associated with early stent thrombosis in patients undergoing drug eluting stent implantation: Analysis from the Victorian cardiac outcomes registry. Catheter Cardiovasc Interv 99(3):554-562. doi: 10.1002/ccd.29913.

Paratz ED, Block TJ, **Stub DA**, La Gerche A, **Kistler PM**, Kalman JM, Strathmore N, Mond H, Woodford NWF, Burke M, **Voskoboinik A**. (2022) Postmortem Interrogation of Cardiac Implantable Electronic Devices: A 15-Year Experience. JACC Clin Electrophysiol 8(3):356-366. doi: 10.1016/j.jacep.2021.10.011.

Paratz ED, van Heusden A, Zentner D, Morgan N, Smith K, Ball J, Thompson T, James P, Connell V, Pflaumer A, Semsarian C, Ingles J, **Stub D**, Parsons S, La Gerche A. (2022) Predictors and outcomes of in-hospital referrals for forensic investigation after young sudden cardiac death. Heart Rhythm 19(6):937-944. doi: 10.1016/j.hrthm.2022.01.035.

Paratz ED, van Heusden A, Smith K, Ball J, Zentner D, Morgan N, Thompson T, James P, Connell V, Pflaumer A, Semsarian C, Ingles J, Parsons S, **Stub D**, La Gerche A. (2022) Higher rates but similar causes of young out-of-hospital cardiac arrest in rural Australian patients. Aust J Rural Health doi: 10.1111/ajr.12890. Paratz ED, van Heusden A, Zentner D, Morgan N, Smith K, Ball J, Thompson T, James P, Connell V, Pflaumer A, Semsarian C, Ingles J, **Stub D**, Parsons S, La Gerche A. (2022) Prevalence of Coronary Artery Anomalies in Young and Middle-Aged Sudden Cardiac Death Victims (from a Prospective State-Wide Registry). Am J Cardiol 175:127-130. doi: 10.1016/j.amjcard.2022.03.055.

Shirwaiker A, William J, Mariani JA, **Kistler PM**, Patel HC, **Voskoboinik A**. (2022) Long-Term Implications of Pacemaker Insertion in Younger Adults: A Single Centre Experience. Heart Lung Circ 31(7):993-998. doi: 10.1016/j.hlc.2022.01.009.

Stehli J, Dinh D, Dagan M, Dick R, Oxley S, Brennan A, **Lefkovits** J, Duffy SJ, Zaman S. (2022) Sex differences in treatment and outcomes of patients with in-hospital ST-elevation myocardial infarction. Clin Cardiol 45(4):427-434. doi: 10.1002/clc.23797. Epub 2022 Mar 7.

Stehli J, Dagan M, Dinh DT, **Lefkovits J**, Dick R, Oxley S, Brennan AL, Duffy SJ, Zaman S. (2022) Differences in outcomes of patients with in-hospital versus out-of-hospital ST-elevation myocardial infarction: a registry analysis. BMJ Open 12(3):e052000. doi: 10.1136/bmjopen-2021-052000.

Tan C, Dinh D, Brennan A, Hare DL, Kaye D, **Lefkovits J**, Lockwood S, Neil C, Prior D, Nasis A, Wilson A, Reid CM, **Stub D**, Driscoll A. (2022) Characteristics and Clinical Outcomes in Patients With Heart Failure With Preserved Ejection Fraction Compared to Heart Failure With Reduced Ejection Fraction: Insights From the VCOR Heart Failure Snapshot. Heart Lung Circ 31(5):623-628. doi: 10.1016/j.hlc.2021.09.019.

Thomas W, Werkmeister M, O'Rourke E, Ward S, Bentley L, **Premaratne M**. (2022) Use of computed tomography left atrial appendage as an alternative to trans-oesophageal echocardiography during the COVID-19 pandemic. J Med Imaging Radiat Oncol 66(6):809-811. doi: 10.1111/1754-9485.13411.

Tong DC, Bloom JE, Quinn S, Nasis A, Hiew C, Roberts-Thomson P, Adams H, Sriamareswaran R, Htun NM, Wilson W, **Stub D**, van Gaal W, Howes L, Yeap A, Yip B, Wu S, Perera P, Collins N, Yong A, Bhindi R, Whitbourn R, Lee A, **Premaratne M**, Asrress K, Freeman M, Amerena J, Layland J. (2021) Colchicine in Patients With Acute Coronary Syndrome: Two-Year Follow-Up of the Australian COPS Randomized Clinical Trial. Circulation 144(19):1584-1586. doi: 10.1161/CIRCULATIONAHA.121.054610.

Vlachadis Castles A, Burgess S, Robledo K, Beale AL, Biswas S, Segan L, Gutman S, **Mukherjee S**, Leet A, Zaman S. (2021) Work-life balance: a comparison of women in cardiology and other specialties. Open Heart 8(2):e001678. doi: 10.1136/ openhrt-2021-001678.

**Voskoboinik A**. (2022) Posterior Wall Isolation for Atrial Fibrillation: Time to Curb Our Enthusiasm? JACC Clin Electrophysiol 8(5):593-594. doi: 10.1016/j.jacep.2022.01.025.

**Voskoboinik A**, Nehme Z, **Kistler PM, Stub D**, Smith K. (2022) First time use of manual pressure augmentation for ventricular fibrillation arrest in the community. Resuscitation 174:31-32. doi: 10.1016/j.resuscitation.2022.03.018. Vriesendorp PA, Nanayakkara S, Bowditch J, Htun NM, **Stub D**, Dagan M, Stehli J, Dick R, Duffy SJ, Walton AS. (2021) Short- and Long-Term Outcomes After Transcatheter Aortic Valve Implantation in Public and Private Hospital Settings: A Propensity-Matched Analysis. Heart Lung Circ 30(12):1910-1917. doi: 10.1016/j.hlc.2021.05.083.

Williams MC, Shaw L, Hirschfeld CB, Maurovich-Horvat P, Nørgaard BL, Pontone G, Jimenez-Heffernan A, Sinitsyn V, Sergienko V, Ansheles A, Bax JJ, Buechel R, Milan E, Slart RHJA, Nicol E, Bucciarelli-Ducci C, Pynda Y, **Better N**, Cerci R, Dorbala S, Raggi P, Villines TC, Vitola J, Malkovskiy E, Goebel B, Cohen Y, Randazzo M, Pascual TNB, Dondi M, Paez D, Einstein AJ; INCAPS COVID Investigators Group. (2021) Impact of COVID-19 on the imaging diagnosis of cardiac disease in Europe. Open Heart 8(2):e001681. doi: 10.1136/openhrt-2021-001681.

Xiao X, William J, **Kistler PM**, Joseph S, Patel HC, **Vaddadi G**, Kalman JM, Mariani JA, **Voskoboinik A**. (2022) Prediction of Pacemaker Requirement in Patients With Unexplained Syncope: The DROP Score. Heart Lung Circ 31(7):999-1005. doi: 10.1016/j. hlc.2022.03.002.

Zheng WC, Noaman S, Batchelor RJ, Hanson L, Bloom J, Kaye D, Duffy SJ, Walton A, Pellegrino V, **Shaw J**, Yang Y, French C, **Stub D**, Cox N, Chan W. (2022) Determinants of Undertaking Coronary Angiography and Adverse Prognostic Predictors Among Patients Presenting With Out-of-Hospital Cardiac Arrest and a Shockable Rhythm. Am J Cardiol 171:75-83. doi: 10.1016/j. amjcard.2022.01.053.

Zhou JY, Tie EN, Liew D, Duffy SJ, **Shaw J**, Walton A, Chan W, **Stub D**. (2022) Sex-Specific Outcomes Following Percutaneous Coronary Intervention Versus Coronary Artery Bypass Grafting for Left Main Disease: A Systematic Review and Meta-Analysis. Heart Lung Circ 31(5):658-665. doi: 10.1016/j.hlc.2021.10.025.

#### SZALMUK FAMILY PSYCHO-ONCOLOGY RESEARCH UNIT

**Bobevski I, Kissane DW**, Vehling S, Mehnert-Theuerkauf A, Belvederi Murri M, Grassi L. (2021) Demoralisation and its link with depression, psychological adjustment and suicidality among cancer patients: A network psychometrics approach. Cancer Medicine 00:1–11. https://doi.org/10.1002/cam4.4406

Gan LL, Gong S, **Kissane DW**. (2021) Mental state of demoralisation across diverse clinical settings: A systematic review, meta-analysis and proposal for its use as a 'specifier' in mental illness. Australian & New Zealand Journal of Psychiatry 1–26. https://doi.org/10.1177/00048674211060746



Jhon M, Kim SY, Kim JM, Kim SW, Shin IS, Lee JY, Lee JJ, Gwak SR, **Kissane DW**. (2022). Standardization and validation of the Korean version of Demoralization Scale-II (DS-II-Kr) in cancer patients. Journal of Korean Neuropsychiatric Association 61(2):90-97. https://doi.org/10.4306/jknpa.2022.61.2.90

Jones KF, Washington J, Kearney M, **Kissane DW**, Best M. (2021). Australian perspectives on spiritual care training in healthcare: A Delphi study. Palliative and Supportive Care 13:1-8; https://doi. org/10.1017/S1478951521001024

Kim SY, Kissane DW, Richardson G, Senior J, Morgan J, Peter Gregory P, Birks S, Ooi C, Lipton L, Antill Y, Vereker M, Michael N, **Bobevski, I**. (2021). The role of depression and other psychological factors in work ability among breast cancer survivors in Australia. Psycho Oncology 1–9. https://doi. org/10.1002/pon.5802

Kissane CM, **Kissane DW**. (2022). Prevention of burnout through resilience, wellness programs, and civility in the work environment. Ch11 in Burnout, Depression, and Suicide in Physicians: Insights from Oncology and Other Medical Professions. Editors: L Grassi, MB Riba, D McFarland. Pp. 147-156. Cham, Switzerland, Springer Nature Switzerland AG.

**Kissane DW**. (2021) Cancer and Mental Health in Men. Ch 21 in Castle D and Coghill D (Eds.). Comprehensive Men's Mental Health, Cambridge, Cambridge University Press.

**Kissane DW**. (2022) The flourishing scholarship of psychosocial oncology viewed across 30 years through the lens of this journal, Psycho Oncology. Psycho-Oncology 31:559–561. https://doi. org/10.1002/pon.5925

Michael N, O'Callaghan C, Georgousopoulou E, Melia A, Sulistio M, **Kissane D**. (2021) Video decision support tool promoting values conversations in advanced care planning in cancer: protocol of a randomised controlled trial. BMC Palliative Care 20(1): 95. https://doi.org/10.1186/s12904-021-00794-3

Michael N, Gorelik A, Georgousopoulou E, Sulistio M, Tee P, Hauser K, **Kissane DW**. (2022) Patient caregiver communication concordance in cancer—refinement of the Cancer Communication Assessment Tool in an Australian sample. Supportive Care in Cancer 30:7387-7396. https://doi. org/10.1007/s00520-022-07163-7

Michael NG, Georgousopoulou E, Hepworth G, Melia A, Tuohy R, Sulistio M, **Kissane DW**. (2022) Patient–caregiver dyads advance care plan value discussions: randomised controlled cancer trial of video decision support tool. BMJ Supportive & Palliative Care 0:1–11. https://doi.org/10.1136/bmjspcare-2021-003240

Moon F, Mooney C, McDermott F, Poon P, Kissane DW. (2021) Oscillations, boundaries and ethical care: Social work practitioner researcher experiences with qualitative end-of-life care research. Qualitative Social Work 0(0) 1–19. https://doi. org/10.1177/14733250211045113

O'Callaghan C, Michael N, **Kissane DW**. (2021) Spiritual and Religious Impacts on Advanced Cancer Care in Australia. Ch 16 in Global Perspectives in Cancer Care, Ed by Michael Silbermann and Ann Berger, Oxford, Oxford University Press.

Ratcliffe S, Rosenberg J, Stafford L, Kelly B, Agar M, Boon K, Best M, Dhillon H, Lobb E, **Kissane D**, Milne D, Philip J, Turner J, Shaw J. (2021) Moral distress among oncology and palliative care HCPs in Australia: A qualitative study. Asia-Pacific Journal of Clinical Oncology 17: 20-21.

Wenham J, Best M, Kissane DW. (2021) Systematic review of medical education on spirituality. Intern Med J 51(11):1781-1790. https://doi.org/10.1111/imj.15421

Wenham J, Best M, **Kissane DW**. (2022) Reply letter to Editor. Intern Med J 52(1):164. https://doi.org/10.1111/imj.15646

#### HER CENTRE AUSTRALIA

Arunogiri S, Crossin R, Rizzo D, Walker L, Ridley K, **Gurvich C**. (2021) A systematic review of the effect of ovarian sex hormones on stimulant use in females. Addict Biol 26(6):e13079. doi: 10.1111/ adb.13079.

Carruthers SP, Lee SJ, Sankaranarayanan A, Sumner PJ, Toh WL, Tan EJ, Neill E, Van Rheenen TE, **Gurvich C**, Rossell SL. (2021) Psychosis and Hopelessness Mediate the Relationship Between Reduced Sleep and Suicidal Ideation in Schizophrenia Spectrum Disorders. Arch Suicide Res 1-18. doi: 10.1080/13811118.2021.1944412.

Dobson H, Malpas C, **Kulkarni J**. (2022) Measuring posttraumatic stress disorder following childbirth. Australas Psychiatry 30(4):476-480. doi: 10.1177/10398562221077900.

Fitzgerald PB, Gill S, Breakspear M, **Kulkarni J, Chen L**, Pridmore S, Purushothaman S, Galletly C, Clarke P, Ng F, Hussain S, Chamoli S, Csizmadia T, Tolan P, Cocchi L, Ibrahim Oam S, Shankar K, Sarma S, Lau M, Loo C, Yadav T, Hoy KE. (2022) Revisiting the effectiveness of repetitive transcranial magnetic stimulation treatment in depression, again. Aust N Z J Psychiatry 56(8):905-909. doi: 10.1177/00048674211068788.

Gaillard A, Tan EJ, Carruthers SP, **Gurvich C**, Hughes ME, Neill E, Sumner PJ, Van Rheenen TE, Rossell SL. (2022) No influence of sex on the relationship between schizotypy factors and executive control across the schizophrenia spectrum. J Psychiatr Res 148:325-331. doi: 10.1016/j.jpsychires.2022.02.015.

Gilbertson L, **Kulkarni J**. (2022) The need to take a trauma history in the acute psychiatry inpatient setting. Aust N Z J Psychiatry 56(8):1047. doi: 10.1177/00048674221097037.

**Gilmartin T, Gurvich C**, Sharp G. (2022) The relationship between disordered eating behaviour and the five factor model personality dimensions: A systematic review. J Clin Psychol 78(9):1657-1670. doi: 10.1002/jclp.23337.

Gordon JL, Nowakowski S, **Gurvich C**. (2022) Editorial: The Psychology of Menopause. Front Glob Womens Health 2:828676. doi: 10.3389/fgwh.2021.828676.

Gurvich C, Le J, Thomas N, Thomas EHX, Kulkarni J. (2021)

Sex hormones and cognition in aging. Vitam Horm 511-533. doi: 10.1016/bs.vh.2020.12.020.

**Gurvich C**, Thomas N. (2021) Hormones and Cognition. Brain Sci 11(3):318. doi: 10.3390/brainsci11030318.

**Gurvich C**, Thomas N, **Thomas EH**, Hudaib AR, Sood L, Fabiatos K, Sutton K, Isaacs A, Arunogiri S, Sharp G, **Kulkarni J**. (2021) Coping styles and mental health in response to societal changes during the COVID-19 pandemic. Int J Soc Psychiatry 67(5):540-549. doi: 10.1177/0020764020961790.

Herson M, **Kulkarni J**. (2022) Hormonal Agents for the Treatment of Depression Associated with the Menopause. Drugs Aging 39(8):607-618. doi: 10.1007/s40266-022-00962-x.

Hunter A, Marck CH, Butler E, Allan M, Edward KL, Giles A, **Kulkarni J**, Rajendran D, Shaw S, Grech LB. (2021) Improving the detection and treatment of depression in Australians with multiple sclerosis: A qualitative analysis. Mult Scler Relat Disord 56:103290. doi: 10.1016/j.msard.2021.103290.

Jackson V, Sullivan DH, Mawren D, Freiberg A, **Kulkarni J**, Darjee R. (2021) Trauma-informed sentencing of serious violent offenders: an exploration of judicial dispositions with a gendered perspective. Psychiatr Psychol Law 28(5):748-773. doi: 10.1080/13218719.2020.1855267.

Kulkarni J, Leyden O, Gavrilidis E, Thew C, Thomas EHX. (2022) The prevalence of early life trauma in premenstrual dysphoric disorder (PMDD). Psychiatry Res 308:114381. doi: 10.1016/j. psychres.2021.114381.

Lin D, **Kulkarni J**. (2022) Diagnostic overlap: Complex post-traumatic stress disorder and borderline personality disorder. Aust N Z J Psychiatry 56(5):571-572. doi: 10.1177/00048674211034730.

Magee LA, Benetou V, George-Carey R, **Kulkarni J**, MacDermott NE, Missmer SA, Morroni C, Vidler M, Kennedy SH. (2022) Editorial: COVID-19 and Women's Health. Front Glob Womens Health 3:861315. doi: 10.3389/fgwh.2022.861315.

Marck CH, Hunter A, Butler E, Allan M, Edward KL, Giles A, **Kulkarni J**, Rajendran D, Shaw S, Grech LB. (2022) Assessment and treatment of depression in people with multiple sclerosis: A qualitative analysis of specialist clinicians' experiences. Mult Scler Relat Disord 57:103362. doi: 10.1016/j.msard.2021.103362

McLean CP, Kulkarni J, Sharp G. (2022) Disordered eating and the meat-avoidance spectrum: a systematic review and clinical implications. Eat Weight Disord. doi: 10.1007/s40519-022-01428-0.

McLean CP, Kulkarni J, Sharp G. (2022) Eating disorders and meat avoidance: A call to understand the 'why' instead of the 'what'. Aust N Z J Psychiatry 56(6):731-732. doi: 10.1177/00048674211037889.

Mu E, Kulkarni J. (2022) Hormonal contraception and mood disorders. Aust Prescr 45(3):75-79. doi: 10.18773/ austprescr.2022.025.

**Mu E, Thomas EHX, Kulkarni J**. (2022) Menstrual Cycle in Trauma-Related Disorders: A Mini-Review. Front Glob Womens Health 3:910220. doi: 10.3389/fgwh.2022.910220.

Nilaweera D, Freak-Poli R, Gurvich C, Ritchie K, Chaudieu I, Ancelin ML, Ryan J. (2022) The association between adverse childhood events and later-life cognitive function and dementia risk. J Affect Disord 304:128-132. doi: 10.1016/j.jad.2022.02.062.

Pawluski JL, Apter G, **Kulkarni J**, Osborne LM. (2022) Editorial: Neurobiology of Peripartum Mental Illness. Front Glob Womens Health 3:888088. doi: 10.3389/fgwh.2022.888088.

Phelps AJ, Lethbridge R, Brennan S, Bryant RA, Burns P, Cooper JA, Forbes D, Gardiner J, Gee G, Jones K, Kenardy J, **Kulkarni** J, McDermott B, McFarlane AC, Newman L, Varker T, Worth C, Silove D. (2022) Australian guidelines for the prevention and treatment of posttraumatic stress disorder: Updates in the third edition. Aust N Z J Psychiatry 56(3):230-247. doi: 10.1177/00048674211041917.

Phillipou A, Rossell SL, **Gurvich C**, Castle DJ, Meyer D, Abel LA. (2022) A biomarker and endophenotype for anorexia nervosa? Aust N Z J Psychiatry 56(8):985-993. doi: 10.1177/00048674211047189.

Phillipou A, Rossell SL, Castle DJ, **Gurvich C**. (2022) Interoceptive awareness in anorexia nervosa. J Psychiatr Res 148:84-87. doi: 10.1016/j.jpsychires.2022.01.051.

Phillipou A, **Gurvich C**, Castle DJ, Rossell SL. (2022) Anorexia nervosa, weight restoration and biological siblings: Differences and similarities in clinical characteristics. Australas Psychiatry 30(4):458-461. doi: 10.1177/10398562211067194.

**Riddiford JA**, Enticott PC, Lavale A, **Gurvich C**. (2022) Gaze and social functioning associations in autism spectrum disorder: A systematic review and meta-analysis. Autism Res 15(8):1380-1446. doi: 10.1002/aur.2729.

Robertson E, Thew C, Thomas N, Karimi L, **Kulkarni J**. (2021) Pilot Data on the Feasibility And Clinical Outcomes of a Nomegestrol Acetate Oral Contraceptive Pill in Women With Premenstrual Dysphoric Disorder. Front Endocrinol (Lausanne) 12:704488. doi: 10.3389/fendo.2021.704488.

Thomas N, **Gurvich C, Kulkarni J**. (2021) Sex Differences and COVID-19. Adv Exp Med Biol 1327:79-91. doi: 10.1007/978-3-030-71697-4\_6.

Thomas N, Armstrong CW, Hudaib AR, **Kulkarni J, Gurvich C**. (2021) A network meta-analysis of stress mediators in suicide behaviour. Front Neuroendocrinol 63:100946. doi: 10.1016/j. yfrne.2021.100946.

Thomas N, **Gurvich C**, Huang K, Gooley PR, Armstrong CW. (2022) The underlying sex differences in neuroendocrine adaptations relevant to Myalgic Encephalomyelitis Chronic Fatigue Syndrome. Front Neuroendocrinol 66:100995. doi: 10.1016/j.yfrne.2022.100995.



Thomas EHX, Rossell SL, Gurvich C. (2022) Gender Differences in the Correlations between Childhood Trauma, Schizotypy and Negative Emotions in Non-Clinical Individuals. Brain Sci 12(2):186. doi: 10.3390/brainsci12020186.

**Tsinanis T, Mu E, Kulkarni J**. (2022) The physical symptoms of polycystic ovarian syndrome exacerbate the mental health symptoms of borderline personality disorder. Aust N Z J Psychiatry. 56(7):878. doi: 10.1177/00048674211062533.

### DEPARTMENT OF HEALTH INFORMATICS

**Bucalon B**, Shaw T, Brown K, Kay J. (2022) State-of-the-art Dashboards on Clinical Indicator Data to Support Reflection on Practice: Scoping Review. JMIR Med Inform 10(2):e32695. doi: 10.2196/32695.

Mullins AK, Morris H, Enticott J, Ben-Meir M, Rankin D, Mantripragada K, Skouteris H. (2021) Use of My Health Record by Clinicians in the Emergency Department: An Analysis of Log Data. Front Digit Health 3:725300. doi: 10.3389/ fdgth.2021.725300.

**Mullins AK**, Skouteris H, **Rankin D**, Morris H, Hatzikiriakidis K, Enticott J. (2022) Predictors of clinician use of Australia's national health information exchange in the emergency Department: An analysis of log data. Int J Med Inform 161:104725. doi: 10.1016/j. ijmedinf.2022.104725.

Punchihewa N, **Rankin D**, Ben-Meir M, Brichko L, Turner I. (2021) Trends in presentations to a private emergency department during the first and second waves of the COVID-19 pandemic in Australia. Aust Health Rev 45(6):690-695. doi: 10.1071/AH21185.

#### INTENSIVE CARE RESEARCH UNIT

Anderson DJ, **Philpot SJ** (2021) The ethical and legal implications of the Human Tissue Amendment Act 2020 (Vic). Critical care and resuscitation 23(3):245-247.

Anderson DJ, **Philpot SJ** (2022) Is it ethical to use age to guide triage decisions during a pandemic? Critical Care and Resuscitation 24(2):102-105.

Anstey MH, Mitchell IA, Corke C, Murray L, Mitchell M, Udy A, **Sarode V**, Nguyen N, Flower O, Ho KM, Litton E, Wibrow B, Norman R. (2021) Intensive care doctors and nurses personal preferences for Intensive Care, as compared to the general population: a discrete choice experiment. Crit Care 25(1):287. doi: 10.1186/s13054-021-03712-4.

Balachandran M, Banneheke P, Pakavakis A, Al-Bassam W, **Sarode** V, Rowland M, Shehabi Y. (2021) Postoperative 20% albumin vs standard care and acute kidney injury after high-risk cardiac surgery (ALBICS): study protocol for a randomised trial. Trials 22(1):558. doi: 10.1186/s13063-021-05519-8.

Corrigan C, Duke G, Millar J, Paul E, **Butt W**, Gordon M, Coleman J, Pilcher D, Oberender F; Australian and New Zealand Intensive Care Society Pediatric Study Group (ANZICS PSG) and the ANZICS Center for Outcome and Resource Evaluation (ANZICS CORE).

(2022) Admissions of Children and Adolescents With Deliberate Self-harm to Intensive Care During the SARS-CoV-2 Outbreak in Australia. JAMA Netw Open 5(5):e2211692. doi: 10.1001/ jamanetworkopen.2022.11692.

Digby R, Manias E, Haines KJ, Orosz J, **Ihle J**, Bucknall TK. (2022) Family experiences and perceptions of intensive care unit care and communication during the COVID-19 pandemic. Aust Crit Care S1036-7314(22)00035-2.

Gelbart B, McSharry B, Delzoppo C, Erickson S, Lee K, **Butt W**, Rea M, Wang X, Beca J, Kazemi A, Shann F. (2022) Pragmatic Randomized Trial of Corticosteroids and Inhaled Epinephrine for Bronchiolitis in Children in Intensive Care. J Pediatr 244:17-23.e1. doi: 10.1016/j.jpeds.2022.01.031.

Hjortrup PB, **Butt W**. (2022) Cardiac manifestations in critically ill patients with COVID-19: do we really know what hit us? Intensive Care Med 48(6):723-725. doi: 10.1007/s00134-022-06727-9.

Ho JH, **Philpot SJ**. (2022) Let's talk about it: A conversation about communication. Emerg Med Australas 34(2):275-277. doi: 10.1111/1742-6723.13947.

Hodgson CL, Higgins AM, Bailey M, Barrett J, Bellomo R, Cooper DJ, Gabbe BJ, Iwashyna T, Linke N, Myles PS, Paton M, **Philpot S**, Shulman M, Young M, Serpa Neto A; PREDICT Study Investigators. (2022) Comparison of 6-month outcomes of sepsis versus non-sepsis critically ill patients receiving mechanical ventilation. Crit Care 26(1):174. doi: 10.1186/s13054-022-04041-w.

Kimura S, Gelbart B, Chiletti R, Stephens D, **Butt W**. (2021) Carboxyhemoglobin levels in children during extracorporeal membrane oxygenation support: a retrospective study. Perfusion 2676591211027776. doi: 10.1177/02676591211027776.

Magee A, Deschamps R, Delzoppo C, Pan KC, **Butt W**, Dagan M, Forrest A, Namachivayam SP. (2022) Temperature Management and Health-Related Quality of Life in Children 3 Years After Cardiac Arrest. Pediatr Crit Care Med 23(1):13-21. doi: 10.1097/ PCC.00000000002821.

Milross L, O'Donnell T, Bucknall T, Pilcher P, Poole A, Reddi B, **Ihle J**. (2022) Perceptions held by healthcare professionals concerning organ donation after circulatory death in an Australian intensive care unit without a local thoracic transplant service: A descriptive exploratory study. Australian Critical Care 35(4):430-437.

Myatra SN, Divatia JV, **Brewster DJ**. (2022) The physiologically difficult airway: an emerging concept. Curr Opin Anaesthesiol 35(2):115-121. doi: 10.1097/ACO.000000000001102.

Pound GM, Jones D, Eastwood GM, Paul E, Hodgson CL; Australia and New Zealand Cardiac Arrest Outcome and Determinants of ECMO (ANZ-CODE) Investigators. (2022) Long-Term Functional Outcome and Quality of Life Following In-Hospital Cardiac Arrest-A Longitudinal Cohort Study. Crit Care Med 50(1):61-71. doi: 10.1097/CCM.00000000005118.

Rotherham HJ, Jones DA, Presneill JJ; Victorian EOLC MET

**Investigators**. (2022) Intensive care unit trainee perception of end-of-life care provided during medical emergency team activation events. Intern Med J 52(6):982-994. doi: 10.1111/ imj.15262.

Russotto V, Tassistro E, Myatra SN, Parotto M, Antolini L, Bauer P, Lascarrou JB, Szułdrzyński K, Camporota L, Putensen C, Pelosi P, Sorbello M, Higgs A, Greif R, Pesenti A, Valsecchi MG, Fumagalli R, Foti G, Bellani G, Laffey JG; **INTUBE Study Investigators**. (2022) Peri-intubation Cardiovascular Collapse in Critically III Patients: Insights from the INTUBE Study. Am J Respir Crit Care Med. doi: 10.1164/rccm.202111-2575OC.

Schlapbach LJ, Gibbons KS, Horton SB, Johnson K, Long DA, Buckley DHF, Erickson S, Festa M, d'Udekem Y, Alphonso N, Winlaw DS, Delzoppo C, van Loon K, Jones M, Young PJ, **Butt W**, Schibler A; NITRIC Study Group, the Australian and New Zealand Intensive Care Society Clinical Trials Group (ANZICS CTG), and the ANZICS Paediatric Study Group (PSG). (2022) Effect of Nitric Oxide via Cardiopulmonary Bypass on Ventilator-Free Days in Young Children Undergoing Congenital Heart Disease Surgery: The NITRIC Randomized Clinical Trial. JAMA 328(1):38-47. doi: 10.1001/jama.2022.9376.

Van Den Helm S, Yaw HP, Letunica N, Barton R, Weaver A, Newall F, Horton SB, Chiletti R, Johansen A, Best D, McKittrick J, **Butt W**, d'Udekem Y, MacLaren G, Linden MD, Ignjatovic V, Monagle P. (2022) Platelet Phenotype and Function Changes With Increasing Duration of Extracorporeal Membrane Oxygenation. Crit Care Med. 50(8):1236-1245. doi: 10.1097/CCM.00000000005435.

#### ALAN, ADA AND EVA SELWYN EMERGENCY DEPARTMENT

**Brichko L**, Van Breugel L, Underhill A, Tran H, Mitra B, Cameron PA, Smit V, Giles ML, McCreary D, Paton A, O'Reilly GM. (2022) Impact of COVID-19 vaccinations on emergency department presentations. Emerg Med Australas. doi: 10.1111/1742-6723.14012.

Dubash R, Govindasamy LS, Bertenshaw C, **Ho JH**. (2021) Debriefing in the emergency department. Emerg Med Australas 33(5):922-924. doi: 10.1111/1742-6723.13855.

**Ho JH**, Philpot SJ. (2022) Let's talk about it: A conversation about communication. Emerg Med Australas 34(2):275-277. doi: 10.1111/1742-6723.13947.

Kozlovski J, Matthews A, Bertenshaw C, **Ho JH**. (2021) Do we do enough paediatrics? Emerg Med Australas 33(4):734-736. doi: 10.1111/1742-6723.13822.

Mousa M, Boyle J, Skouteris H, **Mullins AK**, Currie G, Riach K, Teede HJ. (2021) Advancing women in healthcare leadership: A systematic review and meta-synthesis of multi-sector evidence on organisational interventions. EClinicalMedicine 39:101084. doi: 10.1016/j.eclinm.2021.101084.

**Mullins AK**, Morris H, Enticott J, **Ben-Meir M**, Rankin D, Mantripragada K, Skouteris H. (2021) Use of My Health Record by Clinicians in the Emergency Department: An Analysis of Log Data. Front Digit Health 3:725300. doi: 10.3389/ fdgth.2021.725300.

**Mullins AK**, Skouteris H, Rankin D, Morris H, Hatzikiriakidis K, Enticott J. (2022) Predictors of clinician use of Australia's national health information exchange in the emergency Department: An analysis of log data. Int J Med Inform 161:104725. doi: 10.1016/j. ijmedinf.2022.104725.

Mullins A, Skouteris H, Morris H, Enticott J. (2022) A Log Analysis Exploring the Predictors of Electronic Health Record Access by Clinicians for Consumers Aged ≥65 Who Present to the Emergency Department. Stud Health Technol Inform 294:577-578. doi: 10.3233/SHTI220531.

Punchihewa N, Rankin D, **Ben-Meir M, Brichko L, Turner I.** (2021) Trends in presentations to a private emergency department during the first and second waves of the COVID-19 pandemic in Australia. Aust Health Rev 45(6):690-695. doi: 10.1071/AH21185.

Walker K, Jiarpakdee J, Loupis A, Tantithamthavorn C, Joe K, Ben-Meir M, Akhlaghi H, Hutton J, Wang W, Stephenson M, Blecher G, Paul B, Sweeny A, Turhan B; Australasian College for Emergency Medicine, Clinical Trials Network. (2022) Emergency medicine patient wait time multivariable prediction models: a multicentre derivation and validation study. Emerg Med J 39(5):386-393. doi: 10.1136/emermed-2020-211000.

### DEPARTMENT OF ALLIED HEALTH RESEARCH

Alcaraz-Serrano V, **Lee AL**, Gimeno-Santos E. (2022) Respiratory Physiotherapy and Bronchiectasis. Arch Bronconeumol 58(5):377-378. doi: 10.1016/j.arbres.2021.09.001.

Alsubheen SA, Beauchamp M, Ellerton C, Goldstein R, Alison J, Dechman G, Haines KJ, Harrison S, Holland A, **Lee A**, Marques A, Spencer L, Stickland M, Skinner EH, Brooks D. (2022) Age and Sex Differences in Balance Outcomes among Individuals with Chronic Obstructive Pulmonary Disease (COPD) at Risk of Falls. COPD 19(1):166-173. doi: 10.1080/15412555.2022.2038120.

**Brusco NK**, Ekegren CL, Taylor NF, Hill KD, **Lee AL**, Somerville L, Lannin NA, Wade D, Abdelmotaleb R, Callaway L, Whittaker SL, Morris ME. (2021) Self-managed occupational therapy and physiotherapy for adults receiving inpatient rehabilitation ('My Therapy'): protocol for a stepped-wedge cluster randomised trial. BMC Health Serv Res 21(1):811. doi: 10.1186/s12913-021-06462-9.

**Brusco NK**, Ekegren CL, Taylor NF, Hill KD, **Lee AL**, Somerville L, Lannin NA, Wade D, Abdelmotaleb R, Callaway L, Whittaker SL, Morris ME. (2021) Correction to: Self-managed occupational therapy and physiotherapy for adults receiving inpatient rehabilitation ('My Therapy'): protocol for a stepped-wedge cluster randomised trial. BMC Health Serv Res 21(1):977. doi: 10.1186/s12913-021-07002-1.

Clarke SY, Williams MT, Johnston K, **Lee AL**. (2022) The prevalence of pain and dyspnoea and their clinical significant in acute exacerbations of COPD: a systematic review.

### O PUBLICATIONS



Chronic Respiratory Disease 19:14799731221105518. doi: 10.1177/14799731221105518.

Brusco NK, Kugler H, Dufler F, Lee AL, Walpole B, Morris ME, Hill KD, Ekegren CL, Whittaker SL, Taylor NF. (2022) Including exercise self-management as part of inpatient rehabilitation is feasible, safe and effective for patients with cognitive impairment. J Rehabil Med Clin Commun 5:1000076. doi: 10.2340/20030711-1000076.

Frank HE, Munro PE, Clark I, Lee AL. (2022) The Effect of Music Listening during Pulmonary or Cardiac Rehabilitation on Clinical Outcomes: A Systematic Review and Meta-analysis. Cardiopulmonary Physical Therapy Journal. doi: 10.1097/ CPT.000000000000204.

Jesus LA, Malaguti C, Evangelista DG, Azevedo FM, França BP, Santos LT, Reboredo MM, Lee AL, Cabral LA, Cabral LF, José A, Oliveira CC. (2022) Caregiver Burden Is Associated With the Physical Function of Individuals on Long-Term Oxygen Therapy. Respir Care respcare.09619. doi: 10.4187/respcare.09619.

Kugler HL, Taylor NF, Boyd L, Brusco NK. (2022) Nurses sustain manual handling risk assessment behaviours six-months after a training program to move patients safely: a pre-post study. Disability and Rehabilitation. doi: 10.1080/09638288.2022.2048908.

Lee AL, Tilley L, Baenziger S, Hoy R, Glaspole I. (2022) The perceptions of telehealth physiotherapy for people with bronchiectasis during a global pandemic – a qualitative study. Journal of Clinical Medicine 11(5):1315. doi: 10.3390/jcm11051315.

Lee AL, Nicolson CHH, Bondarenko J, Button BM, Ellis S, Stirling RG, Hew M. (2022) The clinical impact of self-reported symptoms of chronic rhinosinusitis in people with bronchiectasis. Immun Inflamm Dis 10(1):101-110. doi: 10.1002/iid3.547.

Nakazawa A, Dowman LM, Cox NS, Brazzale DJ, McDonald CF, Hill CJ, Lee A, Holland AE. (2022) Prescribing walking training in interstitial lung disease from the 6-minute walk test. Physiother Theory Pract 1-5. doi: 10.1080/09593985.2022.2029992.

Whittaker SL, Taylor NF, Hill KD, Ekegren CL, Brusco NK. (2021) Self-managed occupational therapy and physiotherapy for adults receiving inpatient rehabilitation ('My Therapy'): protocol for a mixed-methods process evaluation. BMC Health Serv Res 21(1):810. doi: 10.1186/s12913-021-06463-8.

Woldeamanuel GG, Frazer AK, Lee A, Avela J, Tallent J, Ahtiainen JP, Pearce AJ, Kidgell DJ. (2022) Determining the Corticospinal Responses and Cross-Transfer of Ballistic Motor Performance in Young and Older Adults: A Systematic Review and Meta-Analysis. J Mot Behav 1-24. doi: 10.1080/00222895.2022.2061409.

### **INFRASTRUCTURE – BIOSTATISTICS**

Adelirad F, Salimi MM, Dianat I, Asghari-Jafarabadi M, Chattu VK, Allahverdipour H. (2022) The Relationship between Cognitive Status and Retained Activity Participation among Community-Dwelling Older Adults. Eur J Investig Health Psychol Educ. 12(4):400-416. doi: 10.3390/ejihpe12040029.

Asghari S, Rezaei M, Rafraf M, Taghizadeh M, Asghari-Jafarabadi M, Ebadi M. (2022) Effects of Calorie Restricted Diet on Oxidative/Antioxidative Status Biomarkers and Serum Fibroblast Growth Factor 21 Levels in Nonalcoholic Fatty Liver Disease Patients: A Randomized, Controlled Clinical Trial. Nutrients. 14(12):2509. doi: 10.3390/nu14122509.

Hemmatzadeh S, Abbasalizadeh F, Mohammad-Alizadeh-Charandabi S, Asghari Jafarabadi M, Mirghafourvand M. (2022) Development and Validation of a Nomogram to Estimate Risk of Cesarean After Induction of Labor in Term Pregnancies with an Unfavorable Cervix in Iran. Clin Nurs Res. 31(7):1332-1339. doi: 10.1177/10547738221093754.

Izadi Laybidi M, Rasoulzadeh Y, Dianat I, Samavati M, Asghari Jafarabadi M, Nazari MA. (2022) Cognitive performance and electroencephalographic variations in air traffic controllers under various mental workload and time of day. Physiol Behav. 252:113842. doi: 10.1016/j.physbeh.2022.113842.

Khosravi Z, Hadi A, Tutunchi H, Asghari-Jafarabadi M, Naeinie F, Roshanravan N, Ostadrahimi A, Fadel A. (2022) The effects of butyrate supplementation on glycemic control, lipid profile, blood pressure, nitric oxide level and glutathione peroxidase activity in type 2 diabetic patients: A randomized triple -blind, placebo-controlled trial. Clin Nutr ESPEN. 79-85. doi: 10.1016/j. clnesp.2022.03.008.

Moayed MS, Vahedian-Azimi A, Gohari-Moghadam K, Asghari-Jafarabadi M, Reiner Ž, Sahebkar A. (2022) A Modified Physical Disability Screening Model after Treatment in the Intensive Care Unit: A Nationwide Derivation-Validation Study. J Clin Med. 11(12):3251. doi: 10.3390/jcm11123251.

Najjarzadeh M, Asghari Jafarabadi M, Mirghafourvand M, Abbasalizadeh S, Mohammad-Alizadeh-Charandabi S. (2022) Validation of a Nomogram for Predicting Preterm Birth in Women With Threatened Preterm Labor: A Prospective Cohort Study in Iranian Tertiary Referral Hospitals. Clin Nurs Res. 31(7):1325-1331. doi: 10.1177/10547738221091878.

Shirzadi S, Asghari-Jafarabadi M, Harrison MM, Allahverdipour H. (2022) Development and validation of the psychometric properties of the perceived barriers of mammography scale. Health Care Women Int. 1-21. doi: 10.1080/07399332.2021.

Vahidi M, Namdar Areshtanab H, Ebrahimi H, Asghari Jafarabadi M. (2022) Development of "The Safe Psychiatric Ward Battery". Clin Nurs Res. 10547738221085614. doi: 10.1177/10547738221085614.

## **KEY PARTNERSHIPS**

Cancer Trials Australia (CTA)

Garvan Institute of Medical Research

Monash Partners Academic Health Science Centre (known as Monash Partners)

Monash Partners Comprehensive Cancer Consortium (MPCCC)

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