A year of change

CABRINI RESEARCH ANNUAL REPORT 2020-21

Cabrini RESEARCH

Mr Peter Gregory, breast surgeon, and breast cancer organoid program collaborator.

“Cabrini is highly valued as a research collaborator, as a research leader and as a partner.”

‘THE WRIGHT REVIEW’ SEPTEMBER 2020
MICHAEL WRIGHT, MANAGING DIRECTOR
OF THE MILLER NETWORK GROUP

Δ (Delta) is the mathematical symbol for ‘change’.

Dr Rebekah Engel, Senior Postdoctoral Research Fellow, Cabrini Monash University Department of Surgery.

In 2021, we celebrate 25 years of research and we take our new name, Cabrini Research.

Join us to celebrate the successes and outcomes that have made 2020-21 a year of change.

Cabrini mission

Who we are: We are a Catholic healthcare service inspired by the spirit and vision of Saint Frances Xavier Cabrini and 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.

Cabrini values

Our values form the base of our mission, are built around what we believe and drive how we act. They are drawn from Saint Frances Xavier 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 Saint Frances Xavier Cabrini.

Courage: We have the strength, determination, vision and conviction to continue the work of Mother Cabrini and the Cabrini Sisters.

Respect: We believe that 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.

Contents

Message from the Chair, Cabrini Research Committee

Our 2020-21 Cabrini Research report demonstrates the strong commitment of the Cabrini Board and Cabrini Executive to progress and strengthen research at Cabrini Health. We continue to work in conjunction with the challenges of the COVID-19 pandemic and the ongoing excellence in community participation. Research output and research strategic development reflect the resilience and passion of all participants including research and executive staff, our patients and other members of the Cabrini community.

Whilst it may feel at times as if the world around us has been treading water in an effort to combat successive waves of COVID-19 lockdowns in Victoria, the Cabrini Institute, now renamed 'Cabrini Research' has retained a strong forward momentum – building on prior successes and restructuring in accordance with a comprehensive review undertaken in 2020.

The Institute review, undertaken by the Miller Network Group, recommended the following key changes which have been, or are in the process of being adopted, including:

- Restructure of Cabrini Institute governance with institution of a Cabrini Research Committee, a Board subcommittee, development of a separate Scientific Advisory Committee (SAC) and review of governance policies and processes to ensure research quality, accountability and transparency;
- De-coupling of research and education; the latter being integrated within relevant clinical disciplines;
- Continued focus on translational and health services research, with a focus on key research pillars (some already existing and some to be developed), aligned to Cabrini Health strategic objectives, community need and mission. This will include establishment of a Clinical Trials Business Unit (CTBU);
- Development of strategic research collaborations in Victoria, nationally and internationally;
- Development of a comprehensive performance outcomes and evaluation framework.

From a strong field of applicants, Professor Gary Richardson OAM was appointed to the position of Group Director Cabrini Research in 2021, having previously been Acting Group Director during the period of review. He has worked tirelessly to meet the demands of the restructure recommendations, whilst continuing to support and provide oversight to existing research projects and staff. We are delighted to welcome him to this position and to support his role in implementing the recommendations of the review.

The recently appointed members of the Cabrini Research Committee include people with outstanding academic and business qualifications as well as the diverse personal strengths and perspectives that will ensure Cabrini Research is in the best position to optimise research opportunities

and improve outcomes for our researchers, our patients and all our Cabrini communities.

We would like to thank the Cabrini Board for their commitment to supporting a long-term strategic role for Cabrini Research. Further, we would like to thank in particular our Chairman of the Board Sylvia Falzon and our Chief Executive Sue Williams. Their leadership and commitment to completing and implementing the findings of the Cabrini Institute review will undoubtedly ensure Cabrini Research success moving forwards.

This report demonstrates the ongoing and outstanding results of research at Cabrini. In the last two months alone, Cabrini Research staff from nursing, medical and allied health disciplines have contributed to 54 new research publications. These results reflect the outstanding leadership within the respective departments.

We look forward to ongoing success for Cabrini Research and would like to thank all Cabrini staff for their passion, energy and persistence under difficult environmental conditions. We firmly believe that the changes being made currently as a result of the review will serve to strengthen Cabrini Research and we are committed to our researchers into the future knowing that, through high quality research, better outcomes will be achieved for our patients and the broader community.

ASSOCIATE PROFESSOR CAROLINE BRAND
CHAIR, CABRINI RESEARCH COMMITTEE

Whilst it may feel at times as if the world around us has been treading water in an effort to combat successive waves of COVID-19 lockdowns in Victoria, the Cabrini Institute, now renamed 'Cabrini Research' has retained a strong forward momentum

Cabrini Research Committee

The Cabrini Research Committee, a Board subcommittee, was established in 2021. It is responsible for overseeing strategy, risk and governance of Cabrini Research. The recently appointed members bring outstanding academic and business qualifications as well as diverse personal strengths and perspectives to ensure Cabrini Research is in the best position to succeed.

ASSOCIATE PROFESSOR CAROLINE BRAND
CHAIR, CABRINI RESEARCH COMMITTEE

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 EpiCentre) between 2004 and 2010. She has been a Fellow of the Royal 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 2006-2007. Caroline is a member of the Cabrini Patient Experience and Clinical Governance Committee.

JASON AQUILINA

Jason joined Cabrini in 2011 as Director of Finance and was appointed Chief Financial Officer in August 2017. In this role, he has executive responsibility for Cabrini's patient accounts, payroll, accounts payable, management accounting, procurement, enterprise risk management, finance and treasury functions. Before Cabrini, Jason worked in transport and logistics, where he held multiple finance roles including leading the accounting teams for various large infrastructure and information technology projects. Jason is a certified practising accountant and holds a Bachelor of Business degree majoring in accounting and economics.

PROFESSOR DAVID COPOLOV AO

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 Hospital. 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.

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 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 Board.

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.

PROFESSOR STEPHEN NICHOLLS

Steve 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.

PROFESSOR GARY RICHARDSON OAM

Gary joined Cabrini in 2001 in the role of Director of the Szalmuk Family Department of Medical Oncology. He took over the role of Group Director of 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.

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).

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 Wong 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 & 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 Victorian Government).

PROFESSOR SOPHIA ZOUNGAS

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.

Year in review: message from the Group Director

A year on from the last annual report and the shadow of COVID-19 still hangs over us. To date there have been eight variants of the virus identified. The Alpha, Beta, Gamma and Delta variants fall under Variants of Concern. Whereas the Eta, Iota, Kappa and Lambda fall under Variants of Interest. We are very fortunate to have Associate Professor Philip Russo, Director of the Cabrini Monash University Department of Nursing Research, working with us at Cabrini. Phil has been seconded to the Department of Health to run the quarantine program, and has intimate knowledge about the pandemic that has guided our decisions at Cabrini Research.

The virus has meant that a large part of work in the last 12 months has been during lockdown or under restricted return-to-work guidelines. As you can understand, this has caused great disruption to the flow of research projects and even more impact on funding. This has seriously impacted on our ability to perform translational research with Monash University. It is assumed that mitigation measures will be in place until at least the end of this year. As the uptake of vaccination increases (hopefully) and restrictions relax, we will gradually increase research activities in all departments with appropriate safety. Hopefully the positive news that risk of death from the vaccine is only 0.00009% will be highlighted, rather than the irresponsible scare tactics of the press and anti-vaxxers (a very small but very loud minority), and stimulate the population to "have the jab".

During the lull in research activities, Cabrini Chief Executive Sue Williams commissioned an external review of the Cabrini Institute, research and education. This was an in-depth look at all aspects of the Institute performed by Michael Wright, Managing Director of the Miller Network Group and previous Managing Director, Monash Partners Academic Health Science Centre. The report was designed to give us a blueprint for research and education over the next 10 years. It identified that Cabrini had a strong reputation for research and an impressive array of academic appointments.

The report identified that the current governance structure would not meet the requirements of the National Clinical Trials Governance Framework released by the Australian Commission on Safety and Quality in Health Care in 2020 and piloted in 2021. Clinical trial governance is an integral component of the corporate and clinical governance of health service organisations and trial sites. It ensures that everyone, including frontline trial investigators undertaking clinical trials and members of governing bodies such as boards, is accountable to patients and the community for assuring the delivery of clinical trials is of high quality, integrated into clinical care and continuously improving.

In view of the report, education and research have been split, with the former now managed by the directors of medicine, nursing and allied health. The Cabrini Institute Council has been disbanded, and replaced by a sub-committee of the Cabrini Board, chaired by Associate Professor Caroline Brand. My great thanks go out to the members of the former Council, including Professor Meg Morris, Professor Alison Hutchinson, Professor Judy Lowthian, Professor Julian Smith, Sophie Pennington and Professor Robyn O'Hehir AO for their guidance and stewardship during my time as Group Director.

A Scientific Advisory Committee is currently being formed to oversee and promote research at Cabrini. Other recommendations included greater alignment of research with clinical services, creation of a clinical trials business

unit, and strengthening of partnerships, especially with the Monash Partners Academic Health Science Centre. These recommendations are currently being operationalised.

We were also able to continue plans for the Cabrini Cancer Institute. Stage one was officially opened on 21 April 2021 by the Federal Minister for Health and Aged Care, the Honourable Greg Hunt MP. Its launch is a further exciting step in the development of cancer research at Cabrini Health. A grant from the Federal Government made this all possible. Phase one gives us the capacity to double the number of clinical trials over the next two years and build a state-of-the-art cancer exercise laboratory to best understand how to integrate exercise into every cancer patient's treatment. The latter was funded through the Auric Innovation Grant, an annual grant of $200,000 donated by Mrs Lee and Mr Brian Johnstone. Phase two of the Cancer Institute involves building a new facility that will form part of the Cabrini Malvern masterplan. It will allow further expansion of clinical research, development of research partnerships including a rare cancers treatment centre and establishment of new research services, including genomics (analysis of cancer genes) and tissue banking (storage of tumour cells for research).

One of the major challenges of the pandemic has been the inability to meet in person. This has led to new ways to conduct meetings. Engagement online can be challenging. One great success for us has been the "Cabrini Research Sessions", virtual research seminars which are held every two weeks and recorded for people who cannot attend. The attendance rates are excellent, and clinicians find it far more convenient than attending in person. The meetings have a variable format with Q&A sessions, didactic presentations, recent publications, interviews and medical student presentations. The variety and quality of these sessions has kept everyone involved and allows networking to continue as we aim to break down the silos of medical research.

Despite the COVID-19 slowdown, research activity has been high. There are currently over 350 active research projects being carried out by the Cabrini Research departments. These studies are funded by a mixture of government grants, industry sponsorship and the generosity of our donors. There have been over 270 publications by the departments in peer-reviewed journals and many presentations at national and international conferences, all of which are now done virtually. The Foundation Grant Round once again went ahead, with over $230,000 offered to the successful applicants. All of this money has been provided by our generous donors. The grants are listed in detail later in this document. Congratulations to all the successful applicants.

I would like to take this opportunity to thank our excellent staff who have worked with such passion and commitment during these trying times. We thank Cabrini, as a whole, for its support, particularly the Board, Chief Executive Sue Williams and the Cabrini Research Committee. I would like to acknowledge every patient who has contributed by participating in a clinical trial or supporting education for our health professionals and 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.

PROFESSOR GARY RICHARDSON OAM
GROUP DIRECTOR, CABRINI RESEARCH
DIRECTOR, SZALMUK FAMILY DEPARTMENT OF MEDICAL ONCOLOGY
PROFESSOR OF MEDICINE, MONASH UNIVERSITY

$589,478

CABRINI FOUNDATION GRANTS AND SCHOLARSHIPS AWARDED

272

PUBLICATIONS

168

E-LEARNING COURSES AVAILABLE

103

NEW RESEARCH PROJECTS REVIEWED AND APPROVED

67

PRESENTATIONS

OF ALL NEW PROJECTS APPROVED WERE CANCER RELATED

2020-21 highlights

98
ACTIVE CLINICAL TRIALS

11
NEW PROJECTS WERE RELATED TO COVID-19

27
POSTGRADUATE NURSING POSITIONS OFFERED

18,931
STUDENT PLACEMENT DAYS OFFERED

20
NEW ONCOLOGY TRIALS OPENED

67
GRADUATE NURSING POSITIONS OFFERED

Thank you from the Cabrini Foundation

We would like to acknowledge and thank our donors and bequestors who support our world-class research projects and education at Cabrini. In 2020-21 the Foundation provided $1.2 million in support of education and research. This is an outstanding contribution to progressing research and supporting the education of our staff at Cabrini and provides opportunities that would otherwise not be available.

Donors

Thanks to the generosity of major donors Mrs Lee and Mr Brian Johnstone, the Auric (meaning 'gold') Innovation Grant has been awarded for the past three years. This grant is designed to foster a culture of innovation throughout Cabrini to improve patient and staff experience.

In June 2021, the Auric Innovation Grant was awarded to Cabrini Technology Group Director of Operations, Josh Farrington, for a software platform (eCaptis) that digitally schedules, captures and reports patient-reported outcome measures (PROMs). eCaptis is simple and low cost to use for the patient and clinician. This digital health-based questionnaire enables patients to provide direct feedback to their treating clinician about their health-related outcomes and patient experience.

We thank our Lets Beat Bowel Cancer donors for their ongoing support of the Colorectal Cancer Organoid Research Program led by Professor Paul McMurrick. This approach to personalised cancer medicine will see every patient who presents with bowel cancer treated on the basis of individual characteristics of their own tumour.

Twenty years ago, Dr Darren Lockie established a program of scholarships, grants and a lecture in memory of his partner Dr Peter Meese. We were delighted to host the 20th anniversary of the Peter Meese Memorial Lecture in March 2021 with Professor Sue Evans discussing "The impact of COVID-19 on cancer diagnoses". The Peter Meese Memorial Nursing Research Grant was awarded to Dr Tali Lang and Kirsten Seletto for their study titled "Does automated home monitoring and management of patient-reported symptoms during systemic cancer treatment improve clinical outcomes?"

The Penny Diamond Cabrini Nursing Scholarship for Future Leaders was established by the Just Group in memory of loyal and long-term staff member Penny Diamond. The scholarship provides an opportunity for nursing leaders to undertake further education to develop skills and gain experience to take on more senior nursing roles or implement projects to improve the way Cabrini

delivers care to its patients. The first award recipient, Manager of the Cabrini Asylum Seeker Health Hub, Tracey Cabrie, will undertake the middle level leadership and management course Women & Leadership Australia – Executive Ready.

Bequests and legacies

Cabrini is always deeply grateful to all our amazing supporters who had the foresight to include a gift in their Will, to enable Cabrini to remain at the forefront in medical research and education.

Your generous and visionary legacies have allowed Cabrini to establish ground-breaking research, educational scholarships, medical infrastructure and the beginnings of our future Cabrini Cancer Institute. Above all, these gifts in Wills are helping save precious lives of future generations.

In the past year, bequests by the late Dr Betty Elliot and John Sutherland Hamling (in memory of his daughter Fiona Hamling) enabled Professor Gary Richardson OAM and senior research fellow Dr Tali Lang to develop personalised therapies for breast cancer patients using organoid and tissue microarray technologies.

A gift by the late Doreen Johnson allowed Professor David Kissane AC to investigate Meaning and Purpose (MaP) Therapy in advanced cancer patients, which focuses on exploring their life's unique meaning and provides a buffer to the distress of advanced cancer.

Legacies left by the late Veronica Choo Neo Png, Gary George Conway and Elaine Berger are paving the way in pancreatic cancer, with the establishment of an Upper Gastrointestinal and Pancreatic Cancer Database.

We wish to also thank the late Lynette Manzie, Pamela Golding, Brian J Sutton FRNA and Dr Maureen MacKay, whose bequests are educating Cabrini nursing staff, expanding their knowledge, and helping them deliver the highest-quality, individualised care to our patients.

Thank you.

Above: Mrs Lee and Mr Brian Johnstone.

Grants and scholarships at Cabrini Research

In 2020-21, Cabrini Research administered $589,478 in new grant and scholarship funding, despite the impact of COVID-19. The funds were spread across professional development and education as well as clinical research and quality improvement projects. A total of $434,789 in research grants was awarded, encompassing the $200,000 Auric Innovation Grant and the Foundation grants program, now in its seventh year of operation.

Research grants

The purpose of the Foundation grants program is to provide a single mechanism for Cabrini employees and visiting medical officers (VMOs) to access funds from Cabrini Foundation for research or quality improvement activities. The Cabrini Foundation is committed to supporting quality improvement activities and research that facilitates and aligns with the strategic and operational program articulated in the 2021-25 Cabrini Strategic Plan. The objectives of the grant program are to facilitate a research culture within the organisation, encourage multidisciplinary research, align research with the Cabrini Strategy, contribute to quality and safety and produce high-quality clinical research.

There are three categories of Foundation Grants:

1. Quality improvement projects (two grants up to $15,000 each), designed for staff/teams engaged in quality projects
2. Research projects (four grants up to $30,000 each), designed for individual researchers or research teams
3. Specific purpose research grants in line with donor intent

In June 2021, members of Cabrini's grant review panel assembled to review applications and select the successful recipients of Cabrini Foundation's annual Clinical Research and Quality Improvement grant round. Led by Chairman of the Cabrini Foundation Board and Cabrini Australia Board, Sylvia Falzon, the review panel discussed 11 shortlisted applications from an incredibly diverse group of disciplines and research areas. Ultimately, the following studies were deemed successful:

- Associate Professor Philip Russo – The accuracy of coded hospital acquired complication data in identifying healthcare associated infections
- Associate Professor Natasha Michael/Dr Merlina Sulistio – Feasibility and acceptability of electronic capturing of patient reported symptoms in an ambulatory cancer setting
- Danielle Feil – Living well with secondary breast cancer – the clinical outcomes and patient perceptions of a combined exercise and educational support group
- Dr Shehara Mendis/Dr Rebekah Engel – Personalising cancer medicine part II: Expanding the organoid program to include treatment-exposed metastatic colorectal cancer
- Dr Tali Lang – 3D breast spheroids as a preclinical model for breast cancer research
- Dr Simon Wilkins – Regulation of the immune response in the colorectal cancer tumour microenvironment and its role in patient outcomes
- Dr Tomas Rozbroj – Psychocultural and practical factors related to Australian adults' understandings and utilisation of information about over-diagnosis: a mixed-methods study
- Dr Tali Lang/Kirsten Seletto – Does automated home monitoring and management of patient-reported symptoms during systemic cancer treatment improve clinical outcomes?

The successful projects will be completed in 12 to 24 months. All recipients are required to disseminate their research findings via a presentation at a Cabrini Research forum, submission of manuscripts for publication in peer review journals and submission of abstracts to present at domestic and international conferences.

Josh Farrington, recipient of the 2021 Auric Innovation grant.

Auric Innovation grant

The Auric Innovation grant supports the development of innovation across Cabrini. The grant is made possible thanks to the generosity of major donors Mrs Lee and Mr Brian Johnstone.

Worth up to $200,000 per year, the Auric Innovation grant can be awarded for use by any campus or department across Cabrini. Auric is open to leaders, potential leaders, thinkers, planners and developers in their field, at any stage of their career. This year saw 10 very high calibre applications. The recipient of the $200,000 Auric Innovation grant for 2021 was Josh Farrington from the Cabrini Technology Group for his project 'eCaptis'. eCaptis is a software platform that will be developed to digitally schedule, capture and report patient-reported outcome measures (PROMs). PROMs enable patients to provide direct, timely feedback to their treating clinician about their health-related outcomes. The eCaptis platform will be readily tailored to provide bespoke solutions that augment a wide variety of clinical programs that will benefit Cabrini and be a commercially attractive solution to other hospitals, registries and home health programs.

Education

The essence of the Cabrini education scholarship program is to honour the intent of funds donated by patients of Cabrini and their families, as well as funds provided by the Cabrini medical staff and Cabrini Research. The program awards these funds to Cabrini staff to support their education and the workforce need (excluding mandatory clinical practice requirements). The aim of the program is to positively impact as many departments and disciplines across Cabrini as possible, to distribute donor funds responsibly, transparently and equitably, ensure good reporting of the funded activity outcomes and engage with our donors.

In 2020-21, $154,689 was awarded in education scholarship funding across a multitude of disciplines. Funding this year included 16 scholarships in the main scholarship round, 12 postgraduate nursing program positions, and 10 medical student scholarships.

Scholarships awarded in the main round included:

- Anne Lloyd – Richard Nossbaum Scholarship for Palliative Care Nursing
- Anthony Grech – Cabrini Chair's Award
- Emma Matthew – Jan Walsh Scholarship for Nursing
- Fiona Topliff – Penny Diamond Nursing Leadership Scholarship
- Kate Cook – Pamela Golding Nursing Scholarship
- Kylie Stansfield – Gillies Palliative Care Nursing Scholarship
- Monica Wells – Brian J Sutton Nursing Scholarship
- Nicola Lowrie – Postgraduate Scholarship
- Swarnalatha Alugadda – Postgraduate Scholarship
- Tracey Cabrie – Penny Diamond Nursing Leadership Scholarship
- Zororo Mabiza – Gillies Palliative Care Nursing Scholarship
- Ivana Zlatic – Postgraduate Scholarship
- Janine Stockley – Dunster Family Scholarship for Palliative Care Nursing
- Louise Suttie – Jean St Leger Nursing Education Scholarship
- Molly McPhie – Pamela Golding Nursing Scholarship
- Vanessa Clough – Lynette Manzie Scholarship

The scholarships and grant programs would not be possible without the incredible generosity of our donors. We extend our immense gratitude to our long-standing donors and those who have recently joined us. Details on how to become involved as a donor can be found through the Cabrini Foundation website (https://cabrinifoundation.com.au/).

Awards for outstanding research

In 2020-21, Cabrini Research recognised and awarded a number of researchers for their commitment and passion for research, for outstanding research outcomes and engaging presentations. All of these researchers have contributed to research that has or will lead to changes in clinical practice and make a difference to outcomes for patients worldwide. Our winners delivered presentations in the Cabrini Research Sessions, our fortnightly online platform for showcasing the most up-to-date research outcomes at Cabrini, where researchers discuss their incredible work and others hear from leaders in their field.

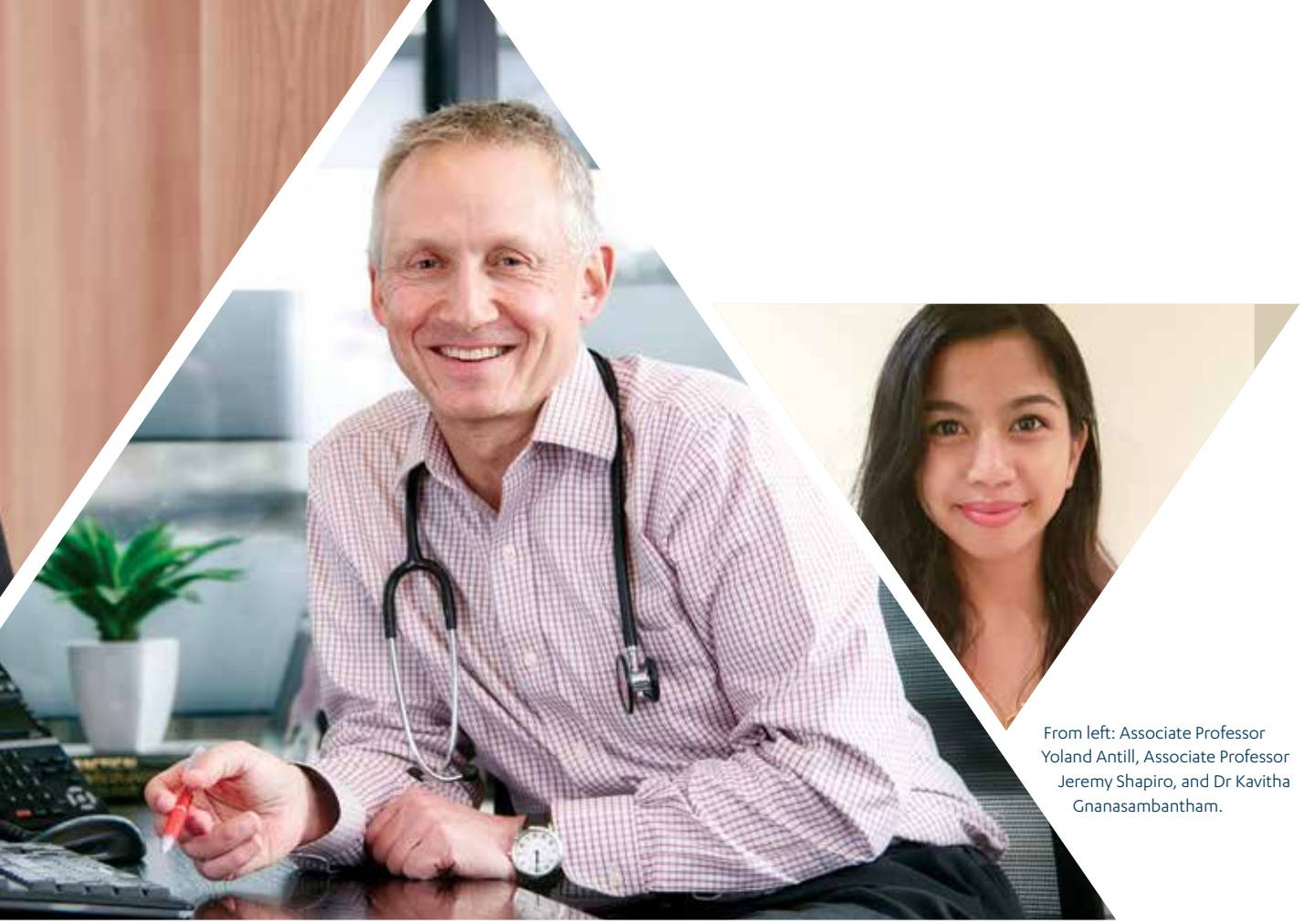
Dr Kavitha Gnanasambantham awarded Best Medical Student Presentation

Every year, the Senior Medical Staff Association at Cabrini offers competitive research scholarships to Monash University 3rd and 4th year Bachelor of Medical Science and Doctor of Medicine (MD) students undertaking clinical placements at Cabrini. The research scholarship program offers students experience in undertaking research and the opportunity to work within a research team. The entire program, from scholarship application, ethics and governance of research and research data collection, through to publication and dissemination at a Research Seminar Series, is invaluable experience for the medical students and encourages them to make an ongoing commitment to research in their medical careers. The experiences of presenting and winning an award are commendable additions to their CVs.

In 2020-21, Cabrini Research awarded former Cabrini medical student Dr Kavitha Gnanasambantham the Best Medical Student Presentation award for her exceptional research presentation. Kavitha's presentation 'Can paired ^{68}Ga PSMA PET CT Scan and multiparametric MRI enable better diagnosis and treatment of biochemical recurrence post radical prostatectomy?' looked at ^{68}Ga-PSMA PET and multiparametric MRI, new imaging modalities that have been proven to detect recurrent prostate cancer more accurately, and whether the addition of the MRI scan had a role to play in picking up local recurrence. Her results showed that MRI was really good at detecting local recurrence, and that pairing them together was the best option. Having both scans improved diagnosis and guided better treatment selection for patients. The research will ultimately change how patients with recurrent prostate cancer are treated.

Associate Professor Jeremy Shapiro named inaugural winner of the Doug Lording Research Award

In 2020, Cabrini Research established the Doug Lording Research Award. Named in honour of the founder of the Cabrini Institute, Associate Professor Doug Lording AM, the award is presented to Cabrini individuals for outstanding



From left: Associate Professor Yoland Antill, Associate Professor Jeremy Shapiro, and Dr Kavitha Gnanasambantham.

achievements in clinical, applied or basic research. The inaugural winner for 2020 was Cabrini medical oncologist and researcher, Associate Professor Jeremy Shapiro.

A/Prof Shapiro specialises in cancers of the gastrointestinal (bowel, oesophagus, stomach, pancreas) and genitourinary systems (prostate, bladder, kidney and testicular). As an Associate Professor in the Department of Medicine, Monash University, he is also involved in teaching and clinical research, with a particular focus on new treatment options for colon and prostate cancer.

A/Prof Shapiro started his research career by completing a three-year oncology fellowship at the National Cancer Institute, USA. He returned to Australia in 1998 and has worked as a medical oncologist at Cabrini Health (and the Alfred Hospital) ever since. He has remained active in clinical research, which he believes is fundamental to improving outcomes for cancer patients. He has authored more than 100 publications and has delivered more than 250 abstracts and presentations. A/Prof Shapiro was also a key player in the development of a national coordinated clinical research program for gastro-intestinal cancer, the Australasian Gastro-Intestinal Trials Group (AGITG), and was a Principal Investigator on the international research team that developed Cetuximab, as the first molecular targeted therapy in advanced colorectal cancer. He has evaluated many novel therapies through clinical trials, allowing early access to these therapies for Cabrini patients. He has also been a leading advisor and contributor to Australian clinical databases for more than 15 years. He is a strong advocate for patients having access to clinical trials, and has been the lead researcher on hundreds of oncology clinical trials during his career.

A/Prof Shapiro has made significant contributions throughout his career in leadership, mentorship and contribution to research discoveries at Cabrini. These contributions have made a lasting impact on the gastrointestinal and genitourinary research fields and guided the development of new research directions. When asked about his vision for future research at Cabrini, A/Prof Shapiro said “to improve the outcomes for cancer patients, by involving as many as possible in direct clinical trial research or through database participation”.

“We know that clinical trial participation improves outcomes, yet less than five per cent of cancer patients in Australia currently participate in trials. At the USA National Cancer Institute, it is 100 per cent. We need to greatly increase our trial participation rates, which we are striving to do at Cabrini. Big data will also be key in moving forward, where multiple hospitals all contribute data to build large complex patient datasets. This will allow us to broaden our research scope, look at our own data from a quality control perspective and benchmark ourselves against other hospitals.”

Associate Professor Yoland Antill wins the Publication of the Year Award

To foster and reward outstanding achievements, Cabrini Research established the Publication of the Year Award in 2020 to celebrate exceptional contributions to research. Awarded annually as part of the Cabrini Research Sessions program, the Publication of the Year Award recognises the most important published discovery during the last two calendar years, recognising innovative approaches, conceptual advances, high quality data and impact on patient health and wellbeing and/or health service delivery.

Cabrini researcher Associate Professor Yoland Antill, together with Professor Clare Scott from the Walter and Eliza Hall Institute and Professor Ian Campbell and Associate Professor Kylie Gorringe from the Peter MacCallum Cancer Centre, have tackled an important question about the origin of a rare and unique subtype of ovarian cancer, mucinous ovarian carcinoma (MOC). Their findings will impact MOC treatment guidelines and patient outcomes worldwide. The international study effort was published in the prestigious journal Nature Communications and was awarded the Cabrini Research Publication of the Year Award.

The origin of MOC has long been controversial, including whether it genuinely arises within the ovary or is a metastatic cancer from another organ. The tumour has long been recognised as having different associated risk factors and poorer responses to traditional therapies used for advanced ovarian cancer.

A/Prof Antill explained that ovarian cancer was comprised of several different histological types, but the MOC subtype was the odd one out. “So much so that the scientific community was divided as to whether this cancer could ever be a primary ovarian tumour and not a metastasis from another organ,” A/Prof Antill said. “Our research findings were able to resolve this debate and will have a huge impact on how we treat patients.”

Due to the rarity of MOC, the study team needed to take an international approach to amass enough MOC tumours to provide definitive evidence. More than 500 tumour samples from four countries (Australia, UK, USA and Canada) were reviewed clinically and pathologically to collect a study sample of 255 confirmed primary MOC samples. To generate the highest quality data, whole genome, exome, and targeted sequencing were performed to allow integration of mutation, copy number, gene expression, clinical and histo-pathological data, and unique patient data over space and time. The extensive data collection enabled the research team to establish that MOC represents a cancer that has progressive molecular evolution with shared abnormalities from the earliest precancerous lesions to advanced high grade tumours together with accumulated mutations, genomic instability as the tumour moves from precancerous to benign, low grade and finally high grade status. While the cell of origin has not yet been established, it is highly likely the tumour develops at the ovary and is not metastases from other sites. The study also identified a novel amplicon driving invasive disease, representative of the role of copy number complexity in patient outcomes. This is the first time that molecular genetic features of MOC have been associated with disease survival.

Many thanks to our supporters

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Cabrini Cancer Institute officially opens in 2021

The Cabrini Cancer Institute was officially opened on 21 April 2021 by the Federal Minister for Health and Aged Care, The Honourable Greg Hunt MP. The launch of the Institute is a further exciting step in the development of cancer research at Cabrini Health. Based at the Malvern hospital, the Cabrini Cancer Institute will be dedicated to advancing translational research by bringing all aspects of cancer research together; and expanding clinical trials and exercise programs for cancer patients. As one of Australia's leading providers of cancer services, the integration of the Cabrini Cancer Institute within the Cabrini Malvern hospital allows researchers and clinicians to work together developing breakthroughs to deliver better health outcomes for all cancer patients.

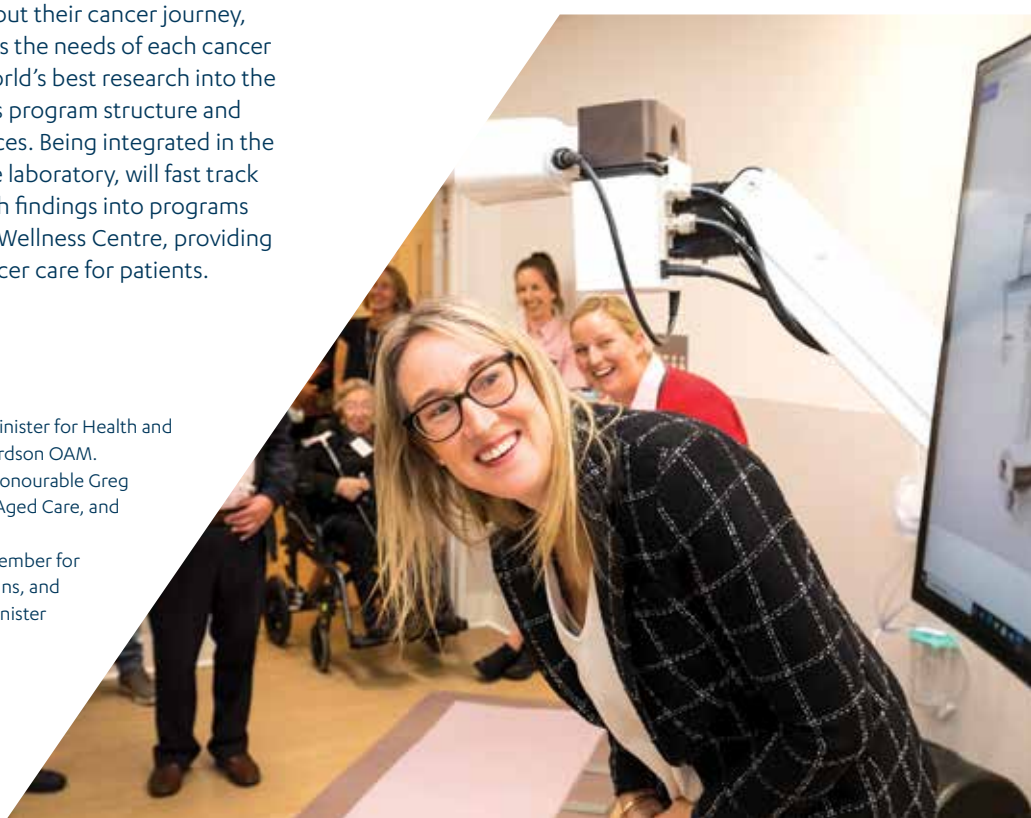
A grant from the Federal Government allowed us to develop phase one of a two-phase project to create a Cancer Institute. Phase one gives us the capacity to double the number of clinical trials over the next two years and build a state-of-the-art cancer exercise laboratory to best understand how to integrate exercise into every cancer patient's treatment. The new cancer exercise laboratory is one of only a few exercise laboratories in the world dedicated to cancer patients. The new world-class laboratory will investigate the potential positive benefits of exercise and exercise therapy/rehabilitation in patients across the entire cancer continuum. To do world-leading research that improves cancer patient outcomes requires exceptional researchers who are leaders and at the forefront of the cancer exercise research field. Cabrini Research is extremely excited to welcome Dr Eva Zopf and Kelcey Bland who will lead the cancer exercise research program at Cabrini.

Phase two of the Cancer Institute involves building a new facility. It will allow further expansion of clinical research, development of research partnerships including a rare cancers treatment centre, and establishment of new research services, including genomics (analysis of cancer genes) and tissue banking (storing tumour cells for research). This building will ensure that Cabrini remains at the forefront of cancer treatment and research.

The development of the Cancer Institute also allows expansion into research in patient experience using patient-reported outcome measures (PROMs), development of novel techniques to determine best therapies, such as tumour organoids (mini-tumours grown in gel that are used for research), and the collection and analysis of data to improve patient outcomes. Cabrini is committed to providing innovative, integrated, individualised, multidisciplinary, personalised cancer care for patients from pre diagnosis through to treatment and survivorship, including palliative care. Collaboration with the Monash Partners Academic Health Science Centre allows the integration of exciting translational research, where findings from the laboratory are able to be used to design more effective and less toxic treatments for patients.

It allows the ability to tailor treatments for individual patients, better known as precision (or personalised) medicine.

Also integrated in the Cabrini Cancer Institute is the newly established Exercise and Wellness Centre. A relaxed, welcoming and comfortable environment, the Cabrini Exercise and Wellness Centre is overseen by dedicated wellness coordinators, and provides information and support to cancer patients and their carers throughout their cancer journey, ensuring that Cabrini better meets the needs of each cancer patient. The centre will embed world's best research into the development and evaluation of its program structure and delivery of its programs and services. Being integrated in the same space as the cancer exercise laboratory, will fast track the translation of positive research findings into programs offered through the Exercise and Wellness Centre, providing an individualised approach to cancer care for patients.



From top:
The Honourable Greg Hunt MP, Federal Minister for Health and Aged Care (left) with Professor Gary Richardson OAM.
Katie Allen, MP Minister for Higgins, the Honourable Greg Hunt MP, Federal Minister for Health and Aged Care, and Ian, oncology clinical trials participant.
The Honourable Kelly O'Dwyer, Former Member for Higgins, Katie Allen, MP Member for Higgins, and the Honourable Greg Hunt MP, Federal Minister for Health and Aged Care.
Associate Professor Melita Kenealy.

Dr Peter Meese

Paying tribute to a 20-year legacy

On Tuesday 23 March 2021, we celebrated the 20th Anniversary of the annual Peter Meese Memorial Lecture. The annual lecture was established in 2001 in honour of Peter Meese, a highly regarded Melbourne physician. Peter was affiliated with many medical organisations, but worked particularly hard in the pursuit of excellence in the field of HIV and sexual health, making invaluable contributions to this field of medicine. He was always involved in clinical trials – for the benefit of his patients.

Peter became a Cabrini patient following his bowel cancer diagnosis in 1999, and sadly passed away in 2000. His partner, Dr Darren Lockie, established a program of cancer research scholarships, grants and the Peter Meese Memorial Lecture to thank Cabrini oncology and palliative care nursing staff for their compassionate care during Peter's illness. Over the 20 years, countless Cabrini staff, particularly nurses, have benefited from the annual lecture, grants and scholarships that are awarded to further oncology nursing education and research. Darren's generous support in memory of Peter and the care they both received ultimately benefits all oncology patients at Cabrini.

Darren said it was special to be celebrating this year, not only as the 20th Anniversary Memorial Lecture, but also as the first virtual gathering. Reflecting back on Peter's time at Cabrini, Darren said "Cabrini nurses cared not only for Peter but the both of us and then, at the end, for me.

"Peter felt like a person not a patient. I was cared for as his partner and his carer, and we were acknowledged and treated as partners long before equality was on the social agenda.

"Cabrini nurses translated compassionate care into reality. This is my thank you for that wonderful compassionate care and support that you gave Peter and me. It was an amazing and empowering experience, one with a lasting legacy that still drives my professional desire to deliver focused personal care every day of my working life."

The keynote presentation was delivered by Professor Sue Evans, Director of the Victorian Cancer Registry (VCR). Sue presented a contemporary assessment of the impact of COVID-19 on cancer diagnoses in Victoria, drawing on her expertise and the VCR's artificial intelligence, which captures cancer notifications in real time as they are signed off in the labs. Sue shared some very interesting and thought-provoking data on how COVID-19 has impacted cancer diagnoses throughout the world, in Australia and specifically in Victoria. She noted, globally there were reduced cancer notifications as a direct result of COVID-19. Modelling suggests that this will likely impact cancer diagnoses and longer-term outcomes such as survival. As a result of this, the Cancer Council have launched public

awareness campaigns to highlight the importance of early diagnosis of cancer.

Cabrini wishes to acknowledge Dr Darren Lockie's outstanding ongoing commitment to oncology nursing and philanthropy over the past 20 years and into the future. It is donations like these that allow Cabrini to continue to support medical research, which subsequently translates into better care for our patients.

Right: Dr Darren Lockie (front) with Dr Susan Ronaldson and Mr Phil Ronaldson.

Cabrini Research: new name, new direction, new strengths

In 2021, we celebrate an incredible 25 years of Cabrini-led advancements in clinical research. First established in 1996 as the Cabrini Clinical Education and Research Foundation, we have evolved greatly during the past 25 years. In 2021, under our new name Cabrini Research, we look to the future that will see us embarking on new and ambitious research programs aligned to our clinical services and a continued pursuit of groundbreaking discoveries in clinical research.

This year we also celebrated the official appointment of Professor Gary Richardson OAM as Cabrini Research Group Director. Gary's acting role and now official appointment has been instrumental in leading the evolution of Cabrini Research over the past 20 months and driving its future capacity to deliver excellent research outcomes. Gary has had a long career at Cabrini, demonstrating exceptional research skills, strong leadership, important networking and collaborations, and an unwavering commitment to achieving the best outcomes for patients and our community. His leadership will play a significant role in shaping the future success of research at Cabrini.

Our strategy

2020-21 has been a year of change for Cabrini Research. Our new strategy takes us to 2025, with a vision to be the leading private research institute for cancer, cardiac and musculoskeletal research in Australia. We will focus on four key projects in the next five years to enable this strategy.

Building the Cabrini Cancer Institute
A grant from the Federal Government has allowed us to successfully develop phase one of a two-phase project to create a Cancer Institute. Phase one allows us to increase cancer clinical trials, build a state-of-the-art exercise laboratory, and establish a cancer wellness and exercise facility. The next stage sees us working towards phase two of this project, a new purpose-built, multi-storey facility which will see the integration and expansion of cancer research with clinical services. The expansion will take advantage of novel partnerships and new technology and diagnostics to support future research and clinical services.

Expand clinical research to align with our clinical services
Cabrini Research will expand its activities in alignment with our clinical services, by establishing departments of cardiovascular, mental health and musculoskeletal research.

Develop and expand the translational research program
In a medical research context, translational research aims to "translate" findings in fundamental bench research into medical practice and meaningful health outcomes. There are currently strong translational programs at Cabrini Research in partnership with Monash University. We look to expand and grow in these areas, pursue novel ventures and capitalise on commercialisation opportunities.

Embed health informatics and research design
There are significant opportunities for expansion in data-driven healthcare and informatics. Cabrini currently supports the collection and contribution of data to some 24 registries and maintains an additional 40 or more databases for research purposes. Our aim is to streamline the coordination of data collection processes and database design at Cabrini. This will enable transformation in health research and facilitate studies that were not feasible in the past, and thus lead to new insights regarding health and disease and outcome data for funding and marketing.

Research design and analysis support for clinicians and research staff employed at Cabrini is imperative for us to achieve research growth and enable expansion of research into new clinical areas. We aim to build support in development, execution and reporting of clinical research studies and clinical audits.

The Wright Review – a map of where we need to go

In July 2020, Cabrini Chief Executive Sue Williams commissioned Managing Director of the Miller Network Group, Michael Wright to undertake a systematic and independent review of the Cabrini Research and Education Institute, now known as Cabrini Research.
The review, now referred to as the Wright review, has provided guidance on the overarching framework and governance systems we are now implementing that will underpin the success of Cabrini Research and our ability to deliver our strategy.

The Wright review involved a desktop analysis of past annual reports to identify historical research patterns and a comprehensive program of interviews to obtain contemporary views on the Institute, including assessments of its past performance and expectations for the future.

The Wright review identified Cabrini had a number of key strengths including a strong reputation for quality of care and research. Our substantial patient throughput, partnering and wide variety of academic appointments led to the summation of Cabrini having "unique research potential".

The review identified there would be significant benefits from increasing the research footprint at Cabrini. Patients and clinicians would benefit from increased access to clinical trials, innovative diagnostic techniques and new technology. Research also drives access to platforms in partner entities, increased supportive capabilities for clinician-led research, increased funding and greater opportunities for commercialisation.

The Wright review also identified a number of opportunities and gaps that have guided us in setting our five-year strategy – restructuring our governance system, evaluating our funding models, and helping define the role Cabrini Research plays within the greater Cabrini organisation.

Some of the key recommendations have already been enacted or are in progress, including:

- De-coupling the research responsibilities from the education responsibilities of Cabrini Institute. This would enable education to be co-located with clinical services enabling what was previously the Institute to focus on research activities. All research now sits under a "one-stop shop" now known as Cabrini Research.

- A new Cabrini Research Committee has been established as a Cabrini Australia Board subcommittee chaired by Board member Associate Professor Caroline Brand. The committee will oversee and provide advice on strategy, risk and governance of Cabrini Research. The new governance structure will allow Cabrini Research to move forward in a more cohesive manner and provide greater alignment with areas of clinical strength. The new structure and composition of the Cabrini Research Committee gives us direct connectivity with the Board and a stronger line of communication than we have ever had before.

- Appointment of a Scientific Advisory Committee (SAC) is expected in late 2021. The SAC will oversee the work of Cabrini Research to develop, support and promote research activities at Cabrini Health. Their role will be to advise on new areas of research suitable to Cabrini and identify and facilitate opportunities for collaborative research.

- Establish a Clinical Trials Business Unit (CTBU) to coordinate and leverage Cabrini's actual and potential clinical trial opportunities into a sustainable business unit.

- Expansion of our research footprint, with a clear alignment to key clinical services. Establishing departments of cardiovascular and musculoskeletal research are key projects.

Dr Tali Lang, Senior Postdoctoral Research Fellow, Cabrini Monash University Department of Medical Oncology – The Szalmuk Family Department of Medical Oncology.

01
Research

PROFESSOR RACHELLE BUCHBINDER AO

Monash-Cabrini Department of Clinical Epidemiology

GRANT FUNDING	PUBLICATIONS	PRESENTATIONS	CLINICAL TRIALS
$62m	56	23	5

We conduct high-quality clinical research and drive translation of research knowledge into practice and policy change for improved healthcare. Our work strives to optimise the value of healthcare, reduce low-value care arising from over-diagnosis and over-treatment, and identify ways to create a more sustainable healthcare system able to support future generations.

We engage consumers as advisors, partners and participants in our research. The research we conduct improves health practices, healthcare sustainability and patient outcomes in Australia and internationally, across a range of fields including but not limited to musculoskeletal health.

Highlights

Despite the difficulties arising from COVID-19 and related calamities, our department has continued to deliver stellar research outcomes with a focus on improving care and outcomes for people with musculoskeletal health. The NHMRC ANZMUSC Clinical Trial Network Centre of Research Excellence ran two highly successful conferences during the year. Our endorsed trials were published in major international journals including JAMA Surgery.

In addition, we have now received NHMRC endorsement for our first set of ANZMUSC National Living Guidelines for pharmacologic management of people with inflammatory arthritis use of opioids and down-titration of biologic and other DMARDs (see mskguidelines.org). Our latest recommendation for COVID-19 vaccination of people with autoimmune inflammatory diseases on immunomodulatory therapies are also being widely used and are being updated frequently as new evidence becomes available. In 2020, we received additional Department of Health funding via a successful Public Health and Chronic Disease Program Arthritis – Health Professional Education and Training grant to commence work on National Living Guidelines for juvenile idiopathic arthritis. As a result, we are training three young paediatric rheumatologists (Drs Georgina Tiller, William Renton and Joachim Tan) in systematic review and

Reducing overuse of musculoskeletal diagnostic imaging by Australian general practitioners using audit and feedback

Diagnostic imaging for people with musculoskeletal conditions is overused in primary care despite evidence-based guidelines recommending against its use in the majority of cases. Audit and feedback is a widely used strategy for improving professional practice and involves measuring and feeding back a summary of clinical performance to healthcare professionals over time.

Our department is leading a new research project with Wiser Healthcare collaborators and the Australian Government Department of Health to assess the effectiveness of providing audit and feedback to approximately 4000 general practitioners for reducing diagnostic imaging requests for common musculoskeletal conditions. This study will generate new knowledge about how best to design and deliver audit and feedback to address low-value care and optimise patient outcomes.

Improving the value of colonoscopies in Victorian health services (VIC-COL)

Colonoscopies are important for detecting and treating bowel cancer, however they are sometimes performed on people who do not require them, or are performed too frequently. Funding from the Victorian Government Department of Health is being used to conduct a new quality improvement project to promote high-value use of colonoscopy in Victorian public hospitals. Optimising use of colonoscopies will reduce risks related to unnecessary procedures, reduce wait times for those who would receive benefit and promote timely detection and treatment of bowel cancer.

This project will draw on expertise from clinical leaders and involve co-design of interventions in collaboration with the people involved in providing on-the-ground colonoscopy care in participating hospitals. Researchers from our department in collaboration with Monash Partners, Melbourne Academic Centre for Health and Western Alliance project leads will support hospitals to implement quality improvement interventions and evaluate outcomes. Key learnings from this project will inform how to drive and sustain change in hospitals to optimise high-value care for other elective procedures.

guideline methodology. These guidelines are also being developed to NHMRC standard.

Our department was also delighted with the promotion of Denise O'Connor to Associate Professor this year. Prof Buchbinder AO was named in The Educator's Higher Education Hot List 2020 representing Monash University. She was also once again named in the 2020 Highly Cited Researchers list from Clarivate Analytics placing her in the top 0.1 per cent of influential researchers worldwide. She was also awarded an NHMRC Investigator Grant: Leadership three for 2021-2025. Her program of work is entitled 'Better evidence more rapidly implemented to optimise health for people with musculoskeletal conditions'.

In 2020 our department also established a bi-monthly webinar series on audit and feedback in collaboration with NPS MedicineWise and the NSW Agency for Clinical Innovation. The webinar series highlights the latest research and lessons from the field for optimising audit and feedback, a widely used strategy for improving healthcare practice.

Above: Dr Jason Wallis, Research Fellow, NHMRC Wiser Healthcare and PCHSS, Monash-Cabrini Department of Clinical Epidemiology.

STAFF

Professor Rachelle Buchbinder AO, Director and NHMRC Investigator Fellow, Chair Australia & New Zealand Musculoskeletal (ANZMUSC) Clinical Trial Network, Coordinating Editor Cochrane Musculoskeletal and Cochrane Back and Neck
Associate Professor Denise O'Connor, Deputy Director and NHMRC Translating Research into Practice (TRIP) Fellow, Director of Australasian Satellite of Cochrane Effective Practice and Organisation of Care (EPOC), Editor Cochrane EPOC and Musculoskeletal
Dr Jodie Avery, Project Manager, National Living Guidelines for juvenile idiopathic arthritis
Vibhasha Chand, Data Manager, Australian Rheumatology Association Database (ARAD)
Dr Sheila Cyril, Assistant Managing Editor, Cochrane Musculoskeletal
Dr Sean Docking, Research Fellow, NHMRC Wiser Healthcare and NHMRC ANZMUSC Clinical Trial Network Centre Research Excellence (CRE)
Ashley Fletcher, Project Officer, ARAD & NHMRC Wiser Healthcare
Dr Jon Foo, Research Fellow, Knee arthroscopy decision aid and Value in care optimising surveillance colonoscopy (VIC-COL)
Dr Vanessa Glennon, Project Manager, National Living Guidelines for pharmacologic management of inflammatory arthritis
Alexandra Gorelik, Biostatistician
Dr Romi Haas, Research Fellow, NHMRC Wiser Healthcare
Jia Xi (JC) Han, Research Assistant and Assistant Managing Editor, Cochrane EPOC
Dr Renea Johnston, Managing Editor, Cochrane Musculoskeletal
Dr Corey Joseph, Research Fellow, VIC-COL
Dr Liesl Nicol, Research Fellow, NHMRC Partnership Centre for Health System Sustainability (PCHSS)
Dr Polina Putrik, Research Fellow, NHMRC PCHSS
Helen Ramsay, Executive Officer, NHMRC ANZMUSC Clinical Trial Network CRE
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Dr Tom Rozbroj, Research Fellow, NHMRC Wiser Healthcare
Dr Joachim Tan, Research Fellow, Australian Living Guidelines for juvenile idiopathic arthritis
Dr Jason Wallis, Research Fellow, NHMRC Wiser Healthcare and PCHSS
Dr Sam Whittle, Practitioner Fellow, NHMRC ANZMUSC Clinical Trial Network CRE
Elizabeth Wolff, Administrative Assistant

PHD STUDENTS

Dr Michael Di Donato (Monash University, 2017–2021 completed)
Caitlin Farmer (Monash University 2017–)
Bayden McKenzie (Monash University, 2020–)
Gayanika Senarath (Monash University, 2019–)
Pramila Rai (Monash University, 2020–)
Liana Cahill (La Trobe University, 2016–)

ACKNOWLEDGEMENT OF STAFF WHO HAVE LEFT (2020-21):

Dr Allison Bourne, Executive Officer, NHMRC ANZMUSC Clinical Trials Network CRE
Dr Lucy Busija, Biostatistician
Dr Emma Gearon, Research Fellow, NHMRC PCHSS
Dr Georgina Tiller, Australian Living Guidelines for juvenile idiopathic arthritis

Dr Tomas Rozbroj

POSTDOCTRAL RESEARCH FELLOW,
MONASH-CABRINI DEPARTMENT OF
CLINICAL EPIDEMIOLOGY

Dr Tomas Rozbroj is a postdoctoral research fellow in the Monash-Cabrini Department of Clinical Epidemiology. He specialises in researching how people understand, accept and use healthcare information. In his role at Cabrini, he applies this speciality to identifying strategies for improving patient and public understanding about low value care and how to avoid it.

Tomas utilises social science, social psychology and public health research perspectives, and has worked on a variety of topics. His earlier research focused on improving mental health services for same-sex attracted people and exploring resilience and psychological flourishing among people living with HIV. Since 2015, his research focused on examining attitudes to vaccination in Australia, which was also the topic of his doctoral thesis. His findings about the ways that vaccine refusal beliefs are linked to identities, self-perceptions, experiences and defined against societal attitudes, remain significant in understanding vaccine hesitancy in Australia today.

Tomas has published widely, with several articles ranking in the first percentile of impact scores. He has contributed media commentaries to outlets including The Conversation, ABC Australia and Radio National, Triple R radio and in News Corporation newspapers. His work has helped influence health policy in Australia and abroad. In 2018, he spent six months in Prague as a visiting academic at Charles University.

Current work

Tomas and his colleagues, led by Professor Rachelle Buchbinder AO and Associate Professor Denise O'Connor, examine strategies to reduce low value care and overdiagnosis. Their work responds to the increasingly recognised problem of 'too much medicine'. Examples of too much medicine include unnecessary medical imaging, ineffective or harmful treatments and the inappropriate labelling of medical abnormalities. The research group is part of the National Wiser Healthcare collaboration, and makes significant contributions to international research to reduce low value care.

One key component of reducing low value care and overdiagnosis is patient-centred strategies to raise awareness and promote informed health decision-making. This can be a tricky task as ideas about excessive testing and overdiagnosis tend to be counter-intuitive and difficult to translate into action. Sometimes, low value care practices are desired by patients, propagated by healthcare professionals and ingrained through decades of public health messaging, media narratives and commonly-held assumptions. To date, public messaging about low value care has had modest success. This is the challenge that Tomas and his colleagues are working to overcome.

Tomas' research examines how lay people understand and use messages about low value care. He led a global systematic literature review and meta-synthesis of qualitative research about lay understandings of overdiagnosis and overtesting. This work produced novel theories about how to talk about low value care with the public. Now, with support from a Cabrini Foundation Research grant, Tomas is commencing research to empirically evaluate these novel theories in-depth among a sample of the Australian public. His multi-stage research will examine the resonance of different messages about low value care, including how different messages fit with the public's broader beliefs, assumptions, values, emotions and social expectations. The project will also examine the public's preferences and perceived capacities for using information about low value care in their medical decision-making. Tomas will use the insights gained from the research to design, test and implement a new generation of public messages to reduce low value care, that are more resonant with the public's beliefs, motivations, values and capacities.

The research by Tomas and his colleagues is driven by a desire to help patients make informed healthcare decisions, but it will also benefit providers, like Cabrini, that are committed to delivering high-value care. The work touches on many key challenges in contemporary public health, including the need for strategies to support informed patient medical decision-making and health literacy, and the need to develop salient healthcare communications for the post-modern information landscape.

The research by Tomas and his colleagues is driven by a desire to help patients make informed healthcare decisions, but it will also benefit providers, like Cabrini, that are committed to delivering high-value care.

PROFESSOR PAUL MCMURRICK

Cabrini Monash University Department of Surgery, The Fröhlich West Chair of Surgery

GRANT FUNDING HELD	PUBLICATIONS	PRESENTATIONS	CLINICAL TRIALS
$804k	10	16	2

Safety in surgery through research: The extensive colorectal neoplasia database forms the bedrock on which all research within the Cabrini Monash University Department of Surgery (CMUDS) is based. The database allows us to carry out a large number of research projects such as investigating which patients might have a recurrence of their cancer, which patients are most at risk of developing complications after surgery, and how we can improve cancer care for improved patient outcomes.

The database aids in a quarterly quality assurance loop to ensure that not only are the overall results for the treatment of bowel cancer at Cabrini at an international standard but also that the individual outcomes of every surgeon are scrutinised and reported.

Personalised medicine tissue platform

In conjunction with Monash University, CMUDS runs three major collaborative projects – organoids, tissue microarray and the tissue-slice assay. With these projects we are able to match individual patient tumour responses to drug treatments, gene expression, and immune responses in the laboratory to clinical data entered into the colorectal neoplasia database. When combined, these three major projects will have the potential to develop ways to personalise treatment for each bowel cancer patient in the future.

Highlights

Honourable Mention in 2020 awards for Outstanding Cancer Research

CMUDS Senior Research Fellow Dr Rebekah Engel received an Honourable Mention in the 2020 Monash Partners Comprehensive Cancer Consortium (MPCCC) Award for Outstanding Cancer Research. The award recognises the achievements of innovative and impactful Victorian mid-career cancer researchers, to reward research excellence and encourage future research leadership. Dr Engel's Honourable Mention was for her research published in the International Journal of Colorectal Disease journal titled 'Patient-derived colorectal cancer organoids upregulate revival stem cell marker genes following chemotherapeutic treatment'. Dr Engel's research is conducted in collaboration with Professor Helen Abud's laboratory at the Biomedicine Discovery Institute at Monash University. The 2020 MPCCC Award for Outstanding Cancer Research incorporates all cancer researchers from Monash University and partner hospitals.

Risk prediction model for 30-day mortality after colorectal cancer surgery

Professor Paul McMurrick and Dr Simon Wilkins led a study assessing the risk of bowel cancer surgery for patients in Australia. The paper, 'Australasian ACPGBI risk prediction model for 30-day mortality after colorectal cancer surgery' was published in a leading British journal, British Journal of Surgery Open (BJS Open). The study tested the Association of Coloprotocologists of Great Britain and Ireland (ACPGBI) original (2003) and revised (2010) statistical models as predictors of mortality after surgery in Australia, and then recalibrated these models specifically for Australian patients. The study found that the models over-predicted the risk of mortality and a new Australasian model was developed and tested on patients. The study brought together a collaborative team of researchers and surgeons from Victoria, New South Wales and Western Australia. Data from more than 10,000 patients over a 20-year period was collected and tested as part of the study. The project was funded in part by Let's Beat Bowel Cancer.

Construction of tissue microarrays for over 1200 colon cancer patients

Personalised medicine allows a tailored approach to medical treatment based on each patient's specific biology and relies on scientifically developed correlations between responses to treatment and specific biomarkers. CMUDS has reached a significant milestone having constructed tissue microarrays for over 1200 colon cancer patients. The ability to combine colon cancer tissue microarray samples with extensive clinical information provides a powerful research tool for personalised medicine. This platform will be utilised to identify factors that can influence current cancer therapies, ultimately personalising cancer treatment for each patient.

Lead researcher, Dr Christine Koulis, presented the work at the Monash Histology Platform Forum in October 2020, in a talk titled "Prognostic biomarkers in stage IV colon cancer: An immunohistochemistry-based study using tissue microarrays".

Patient-Reported Outcome Measures

There is growing interest in integrating Patient-reported outcome measures (PROMs) into routine cancer care. CMUDS is in the process of integrating an electronic PROMs platform within our established Cabrini Monash Colorectal Neoplasia database. Combining PROMs with patient data adds a new dimension to the database allowing patient outcomes to be determined based on a range of parameters. This invaluable information will allow for improvements in patient care and facilitate quality improvement. Dr Koulis and Prof McMurrick are leading this work.

Understanding the immune response in colorectal cancer

Immunotherapies are the newest class of cancer therapies and have shown a strong capacity in many cancer types to boost a patient's immune response against their own tumour. However, in colorectal cancer, for reasons poorly understood, immunotherapy does not work for most patients. Colorectal cancer is the second leading cause of cancer-related death in Australia and we urgently need to understand why this cancer in particular is unable to respond to immunotherapy.

Dr Wilkins, Prof McMurrick and Dr Anne Fletcher from Monash University are currently working on a project looking at the regulation of the immune response in the colorectal cancer tumour microenvironment. This project aims to validate a human tissue-slice assay of colorectal cancer tissue for testing new drugs. Early results show that the assay can be used to explore a patient's sensitivity or resistance to immunotherapies. The mechanism and physical extent of fibroblast (a type of cell) inhibition of the patient's immune response and T cells (a type of white blood cell) remains unclear. Early results show that inhibitors to a protein called cyclo-oxygenase-2 (COX2) are able to enhance existing immunotherapies. The use of cheap, widely available, over-the-counter COX2 inhibitor drugs (e.g. ibuprofen) might be able to enhance immunotherapies and greatly improve patient outcomes. The development of a cutting-edge tissue-slice assay that examines the colorectal cancer microenvironment, coupled with biomarker discovery work, could have significant clinical implications.

This project was recently awarded a $30,000 Cabrini Foundation Research Grant and data from this project was presented at the Royal Australian College of Surgeons Annual Scientific Congress in May 2021.

STAFF

HEAD OF DEPARTMENT

Professor Paul McMurrick – Fröhlich West Chair of Surgery,

CONSULTING SURGEONS

Mr Stephen Bell – Colorectal surgeon, Senior Lecturer
Mr Peter Carne – Colorectal surgeon, Senior Lecturer
Mr Martin Chin – Colorectal surgeon, Senior Lecturer
Mr Chip Farmer – Colorectal surgeon, Senior Lecturer
Emeritus Professor Adrian Polglase
Mr Pravin Ranchod – Colorectal surgeon, Lecturer
Mr Paul Simpson – Colorectal surgeon
Mr Raymond Yap – Colorectal and Academic surgeon, Research Fellow, and supervisor of Colorectal Fellowship Program
Dr Suellyn Centauri – Colorectal fellow
Dr Evan Williams – Colorectal Fellow

SENIOR RESEARCH FELLOWS

Dr Rebekah Engel
Dr Christine Koulis
Dr Simon Wilkins

DATABASE MANAGER

Karen Oliva

STUDENTS

Mr Stephen Bell – PhD, Monash University
Claudia Corrente – Honours, Monash University
Sara Hlavca – PhD, Monash University
Dr Caroline Lum – PhD, Monash University

Right: Dr Rebekah Engel, Senior Postdoctoral Research Fellow, Cabrini Monash University Department of Surgery.

PROFESSOR GARY RICHARDSON OAM

Cabrini Monash University Department of Medical Oncology – The Szalmuk Family Department of Medical Oncology

GRANT FUNDING HELD	PUBLICATIONS	PRESENTATIONS	CLINICAL TRIALS
$400k	116	7	80

The department undertakes a wide range of research activities, largely building upon the second largest clinical service in Victoria (largest private service in Australia). Activities include new drug trials, translational research in breast and ovarian cancers, medical informatics and patient-reported outcome measures. The program provides significant benefits for patients, including access to treatments not yet in the marketplace, close monitoring and testing, and collection of valuable information that can help others.

The department is seen as a partner of choice by the pharmaceutical and biotech industries, particularly in the area of precision medicine. We have a highly trained dedicated team who provide the highest level of care for all patients participating in clinical trials.

Development and maintenance of a robust research program not only benefits patients in terms of access to new active anti-cancer agents. It also allows us to attract the best and brightest researchers and clinicians, who improve the consumer experience even more.

Highlights

Newly established cancer exercise laboratory
This is an innovative project to create a new research stream at Cabrini to investigate novel approaches to improve the outcomes for cancer patients. It will assess the potential positive benefits of exercise and exercise therapy/rehabilitation in patients with cancer by systematic, sequential, objective physiologic measurements of patients during and after cancer treatment. It is an ambitious project as there are very few exercise laboratories in the world dedicated to cancer patients. The only other facility like this in Australia is at the Edith Cowan University, and it has a more general exercise laboratory centred on cardiovascular research. The only comparable program is at Memorial Sloan Kettering in New York, one of the world's leading cancer centres, which concentrates study on the utility of different methods to characterise the chronic and long-term adverse cardiovascular side-effects of conventional and novel cancer therapies. The cancer exercise laboratory at Cabrini will create a facility that allows original research to break new ground in cancer management.

Dr Christian Orlowski.

Prostate cancer publication
Martinez Chanza N, Bernard B, Barthelemy P, Accarain A, Paesmans M, Desmyter L, T'Kint de Roodenbeke D, Gil T, Sideris S, Roumeguere T, Hamid AA, Sweeney CJ. (2021) Prevalence and clinical impact of tumour BRCA1 and BRCA2 mutations in patients presenting with localized or metastatic hormone-sensitive prostate cancer. Prostate Cancer Prostatic Dis. doi: 10.1038/s41391-021-00397-2.

The appropriate management of localised or metastatic hormone-sensitive prostate cancer (HSPC) patients harboring tumor BRCA mutations (tBRCAm) is not well-characterised. This study involving Principal Investigator Dr Anis Hamid sought to evaluate the prevalence and clinical outcomes of patients with tBRCAm and localised or de novo metastatic HSPC.

This was a multicentre, international, retrospective cohort study of 399 patients with localised and de novo metastatic HSPC who underwent tumour BRCA1 and BRCA2 sequencing. 3.1 per cent (8/258) of patients with localised disease and 10.6 per cent (15/141) of patients with denovo metastatic disease harbored a tBRCAm. The median follow-up was 33 and 36 months, respectively. The study showed that tBRCAm seems to be associated with greater relapse risk in localised disease, whereas tBRCAm did not influence the clinical outcomes of patients presenting with de novo metastatic HSPC treated with conventional therapies, but allows new treatment options to be utilised.

Translational research
Cabrini, in collaboration with Monash Biomedicine Discovery Institute, has established a bank of 26 breast tumour organoids (3D mini-tumours grown in matrigel) to date. We continue to increase the number of tumour organoids representing a more clinically diverse range of tumour sub-types. This will allow extensive molecular and genomic characterisation of both the organoids and the original tumour it was derived from. This is performed by using a number of experimental techniques including tissue microarrays (TMA), RNA sequencing and single cell sequencing. These powerful tools combined provide a comprehensive insight into molecular alterations which have occurred in candidate genes known to be implicated in tumour formation. Findings can then be translated for use in the clinical setting to guide physicians regarding which patients are more likely to respond to specific treatments, and which treatments have the best chance of a curative outcome, based on the molecular profiling of the tumour.

Fundraising
In 2021, Breast Friends by the Bay is raising money towards research in prevention and improved treatment outcomes in breast cancer patients. Breast Friends, in collaboration with the Rotary Club of Brighton, will host a lunch after COVID-19 lockdowns end, and donate 50 per cent of funds raised to the Cabrini breast cancer organoid research program.

Patient-reported uutcome measures (PROMs) for lung cancer patients - A partnership with the Victorian Lung Cancer Registry

Lung cancer is one of the most common cancers in Australia, and is the leading cause of cancer-related death. In addition to implementing measures for improving survival, optimising the quality of healthcare for lung cancer patients also requires addressing outcomes that are important to patients, such as their functional and emotional wellbeing and quality of life t.

Lung cancer patients are often elderly and experience a considerable number of physical, mental and social consequences as a result of pre-existing comorbidities, the disease itself and treatment. Despite hospitalisation during active cancer care, many of these side effects and the treatment-related symptom burdens occur between treatments. Learning how patients themselves directly rate their health and quality of life at time points along their care pathway is very important. Collecting and measuring patient-reported outcome measures (PROMs) and using validated questionnaires offers enormous potential to improve the quality of patient care.

Patients are being recruited from the Alfred and Cabrini Health lung cancer services. Patients will complete PROMs following each line of treatment, and every three months after treatment for up to one year. The PROMs are collected on eCAPTIS, a web-based program developed by the Cabrini Technology Group. The platform is designed to enable care providers to seamlessly capture, learn from and report on PROMs and patient reported experience measures (PREMs) so that they may assess the effectiveness of care plans and better tailor the care to the needs of patients.

STAFF

HEAD OF DEPARTMENT

Professor Gary Richardson OAM (Phase I Trials, Gynaecologic Cancers, Lung Cancer)

PRINCIPAL INVESTIGATORS

Associate Professor Yoland Antill (Breast Cancer)
Associate Professor Ben Brady (Melanoma, Lung Cancer)
Dr Anis Hamid (Phase I Trials)
Dr Andrew Haydon (Gastrointestinal Cancers, Melanoma)
Associate Professor Melita Kenealy (Haematologic Malignancies)
Dr Ben Markman (Lung Cancer)
Dr Shehara Mendis (Gastrointestinal Cancers, Phase I Trials)
Associate Professor David Pook (Genitourinary Cancers)
Associate Professor Jeremy Shapiro (Gastrointestinal Cancers, Genitourinary Cancers)

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Dr Sem Liew
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Professor Max Schwarz
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Dr Lucy Gately
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Dr Shehara Mendis

MEDICAL ONCOLOGIST AND RESEARCHER,
CABRINI MONASH UNIVERSITY
DEPARTMENT OF MEDICAL ONCOLOGY

Dr Shehara Mendis is an early-career medical oncologist. She joined the Cabrini Monash University Department of Medical Oncology in the midst of Melbourne's longest lockdown last year. While this naturally provided a challenge, Shehara was fortunate to be returning to some familiar territory, having been a registrar at Cabrini in 2016. In the intervening years she had completed a clinical fellowship at Western Health and spent 18 months in Vancouver, Canada undertaking a clinical and research fellowship at BC Cancer.

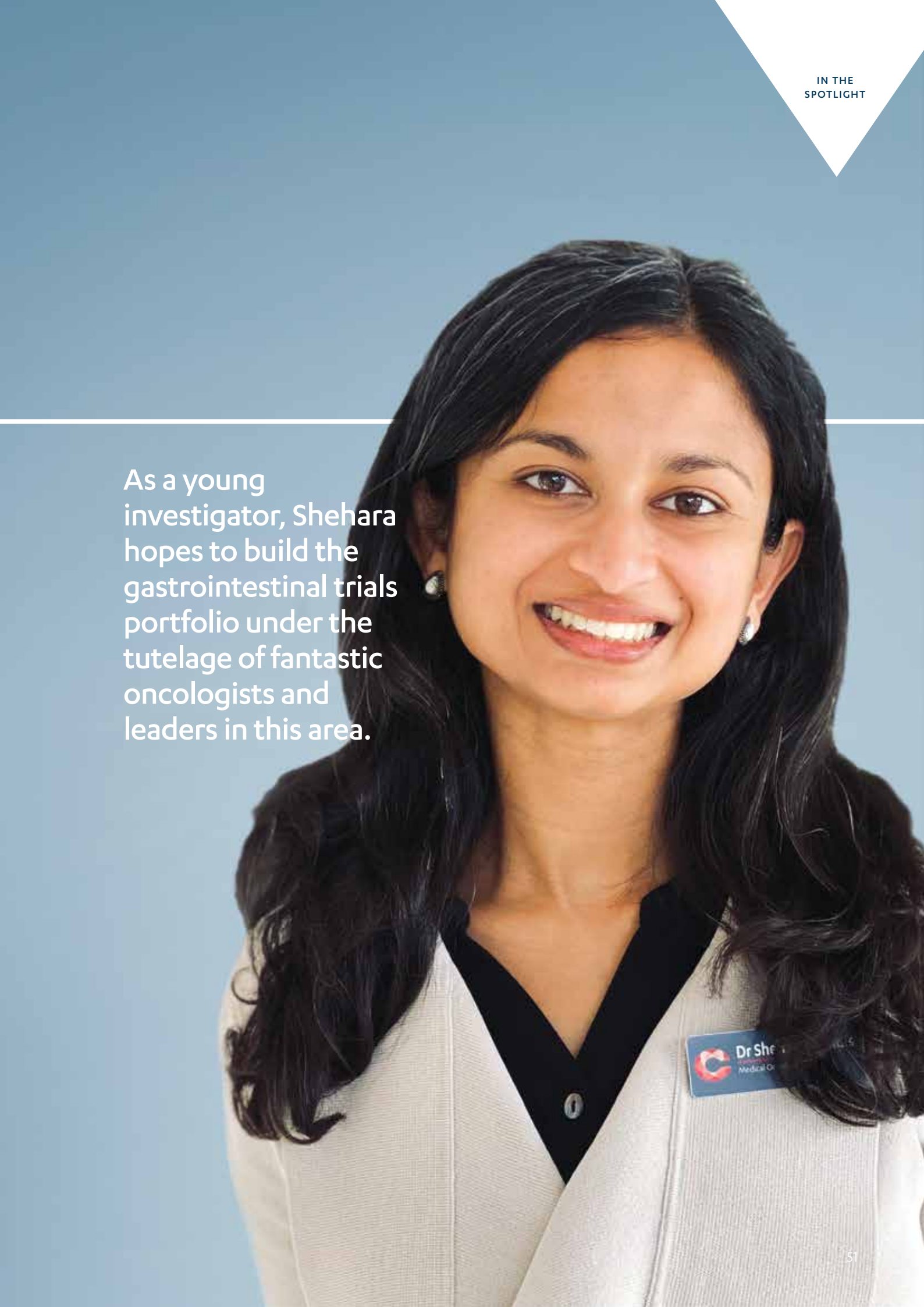
Shehara says her Canadian fellowship provided a wonderful opportunity to work with some of Canada's leading gastrointestinal medical oncologists, as well as gain exposure to a different healthcare system and expand her research capabilities, in no small part due to BC Cancer's translational research program. Some of the research output arising from her Canadian experience included a deep dive into the small minority of metastatic colorectal cancer patients that harbour an atypical BRAF mutation. Another project she led was one demonstrating that trial enrolment by sex remains an area of ongoing disparity, with under-enrolment of women, especially in solid organ cancers. This is of particular relevance to Shehara as a medical oncologist who actively enrols patients on trials. Understanding the mechanisms behind this will be key to removing the inequity.

While in Vancouver, Shehara also commenced a Master of Cancer Sciences through the University of Melbourne that was run wholly online. She greatly enjoyed the post-graduate degree and highly recommends it to anyone considering post-graduate study in oncology who needs flexibility in how they complete the course. Shehara started the degree while still in Vancouver, and completed it while navigating a return to Australia and taking on a number of new roles. Despite so much going on she did exceptionally well, and was proudly the dux of her cohort and received the prize for best monograph (research project) on graduation earlier this year. The manuscript arising from her Masters is under review at present and she hopes to be able to share the outcomes of the study shortly.

Here at Cabrini, Shehara says she has been fortunate to be linked in with very established researchers in the Cabrini Monash University Department of Surgery, and involved in a number of research projects they are running. One project, working with Dr Rebekah Engel, looks to expand the department's organoid study to include patients with colorectal cancer who have already received treatment for their cancer. Ultimately they hope to be able to use organoids to inform the direction of future treatments for these patients.

As a young investigator, Shehara hopes to build the gastrointestinal trials portfolio under the tutelage of fantastic oncologists and leaders in this area. She credits Professor Gary Richardson OAM, Associate Professor Jeremy Shapiro and Associate Professor Lara Lipton for providing enormous mentorship. As a member of the Australasian Gastro-Intestinal Trials Group (AGITG) Upper Gastro-Intestinal Working Party, Shehara hopes to be able to bring some investigator-initiated trials into this space. Shehara has also been leading the build of the Cabrini Upper Gastrointestinal Registry (CAPSTONE), working with Data Manager Sharon Guo. CAPSTONE will capture the care and outcomes of patients with upper gastrointestinal cancer treated at Cabrini, to ensure Cabrini refines patient care as appropriate in the future.

Shehara is incredibly grateful for the opportunities she has been given at Cabrini. She says: "It's incredible to be involved in so many moving parts and to work with so many wonderful researchers."



As a young investigator, Shehara hopes to build the gastrointestinal trials portfolio under the tutelage of fantastic oncologists and leaders in this area.

Making an impact through cancer exercise research

For a long time cancer care has focused largely on medical and pharmaceutical treatment strategies, such as radiation and chemotherapy, and will continue to do so as an important part of the cancer journey. However, we now know exercise can play an important supportive role in managing cancer related health outcomes and improving patient wellbeing. Exercise is associated with improved cancer survival in patients with breast, colon and prostate cancer. There is also evidence to support the efficacy of specific doses of exercise to address common cancer-related side effects, including cancer-related fatigue. Despite the increasing knowledge of the benefits of exercise for people living with and beyond cancer, key research gaps within the field of exercise oncology remain understudied.

In 2021, Cabrini Research established a state-of-the-art exercise laboratory that will investigate innovative approaches to improve the health and wellbeing of cancer patients and address current research gaps within the field. The exercise lab is part of the new Cabrini Cancer Institute facility located in the Cabrini Malvern hospital. Being integrated in the hospital, in the same space as patients, clinicians, clinical trials and allied health services, will fast track the translation of research findings from the lab into standard practice in the hospital and allow for an individualised approach to cancer care. Our aim is to see true bench to bedside translation, with on-site research findings directly informing personal exercise programs that can be conducted before, during and after cancer treatment. As a relatively new area in cancer research and being one of only a few hospitals in the world with an exercise lab dedicated to cancer patients, this will really put Cabrini at the forefront of best-practice cancer care and improve outcomes for patients.

There is potential for exercise oncology research to make an impact in many key areas. The focus of the new exercise lab includes:

- Understanding the clinical benefits of exercise across all phases of the cancer continuum from screening and diagnosis to survivorship and end-of-life care
- Conducting clinical trials to study the effect of structured and individualised exercise on physical and mental health outcomes before, during and after treatment in a broad range of cancer types
- Understanding the potential for exercise to improve cancer treatment tolerability and response as well as recovery upon treatment completion
- Exploring the role of exercise in improving survival following a cancer diagnosis
- Fostering the delivery of best-practice exercise programming and support as a part of standard cancer care

To do world leading research that improves cancer patient outcomes requires exceptional researchers who are leaders and at the forefront of the exercise oncology research field. Cabrini Research is extremely excited to welcome Dr Eva Zopf and Kelcey Bland. Kelcey recently joined us in June of 2021, and Eva will join us after her maternity leave. We invite you to read further about their research careers and where they hope to take cancer exercise research at Cabrini in the future.

Kelcey is interested in evaluating strategies to enhance exercise programming design to maximise exercise adherence and effectiveness in a variety of cancer populations.

Dr Eva M Zopf,

PhD

Exercise Physiologist

Eva joins the Cabrini Cancer Institute and Cabrini Monash University Department of Medical Oncology in the role of Exercise Scientist and Head of the Exercise Lab. Eva is an exercise physiologist whose research focuses on the role of exercise for the management of cancer. She graduated with a PhD in the field of exercise oncology at the German Sport University in Cologne, Germany. Her interest in cancer research was sparked early on in life with her father regularly and passionately sharing his work in cancer drug discovery. The ultimate decision to pursue her PhD studies in exercise oncology came after taking 10 breast cancer patients on an 800-kilometre hike over six weeks along the Camino de Santiago in Spain. Here she witnessed first-hand the positive impact exercise can have as a supportive treatment to improve the physical and mental wellbeing of people diagnosed with cancer. Following her PhD, Eva moved to Australia to complete her postdoctoral research with leading exercise oncology researchers at the Edith Cowan University in Perth and the Mary MacKillop Institute for Health Research at the Australian Catholic University in Melbourne. At the Australian Catholic University and in collaboration with Cabrini and other hospitals in Melbourne, Eva is currently leading several research studies that focus on the efficacy of exercise on specific cancer and treatment-related side effects. This includes a large multi-national study that was funded by the European Union and Australia's National Health and Medical Research Council and explores the efficacy of exercise in 350 patients with metastatic breast cancer. Aside from designing and conducting clinical trials, Eva is dedicated to facilitating the integration of exercise as a part of standard cancer care by transferring knowledge into practice. She has been involved in developing models of care both in Germany and Australia and hopes to apply this experience and contribute to improving supportive and survivorship care for cancer patients at Cabrini.

Aside from designing and conducting clinical trials, Eva is dedicated to facilitating the integration of exercise as a part of standard cancer care by transferring knowledge into practice.

Kelcey A Bland,

BHK, MSc, PhD Candidate
Exercise Physiologist

Kelcey is excited to be working alongside Dr Eva Zopf in the exercise lab at the Cabrini Cancer Institute. Kelcey is an exercise physiologist, originally from Vancouver, Canada and is a current PhD candidate at the Mary MacKillop Institute for Health Research at the Australian Catholic University in Melbourne. Kelcey has had the pleasure of being extensively involved in several research studies evaluating the role of exercise in the management of cancer, spanning from efficacy to knowledge translation trials. Kelcey's journey into the world of exercise and cancer and exercise research began in 2014 when she was hired as a research coordinator and lead exercise physiologist for a Canadian study led by investigators at the University of British Columbia and British Columbia Cancer Agency. Her role included delivering a supervised year-long exercise program for women undergoing adjuvant treatment for breast cancer. It was through her involvement in this trial that she was able to witness the direct benefits of exercise for people undergoing cancer treatment. From feeling both physically and mentally better, as well as receiving social support from fellow participants and research staff, the women who participated in this study would often explain that they could not imagine what their cancer experience would have been like without the exercise research program to support them. After working on this trial, Kelcey decided to complete her Master of Science in exercise oncology at the University of British Columbia under the supervision of Professor Kristin Campbell. In 2018, Kelcey made the large leap across the globe to Melbourne, to start her doctoral work with Dr Eva Zopf and Associate Professor Prue Cormie at the Mary MacKillop Institute for Health Research at the Australian Catholic University. Her current research focus includes understanding the feasibility and efficacy of exercise in palliative cancer patients experiencing muscle-wasting (a syndrome called cachexia) using both qualitative and quantitative research methods. More broadly, Kelcey is interested in evaluating strategies to enhance exercise programming design to maximise exercise adherence and effectiveness in a variety of cancer populations. This includes, for example, adopting exercise "periodisation" prescription approaches to manage fluctuating cancer symptoms during treatment and utilising novel intervention delivery modalities, such as virtually supervised tele-exercise programming to increase patient access to exercise support. Overall, Kelcey is very passionate about this field and is excited to be a part of future cutting edge research at the new exercise lab in the Cabrini Cancer Institute.

ASSOCIATE PROFESSOR PHILIP RUSSO

Cabrini Monash University Department of Nursing Research

GRANT FUNDING HELD
$1.67m

PUBLICATIONS
17

PRESENTATIONS
5

The Cabrini Monash University Department of Nursing Research aims to build capacity of nursing research through engaging with clinicians and supporting opportunities for research training to improve the safety and quality of our services and clinical practice.

Nurses play a pivotal role in provision of care. Research related to nursing practice and key issues is essential to ensure continuous improvement and safe, effective and evidence-based healthcare. Nurses' frontline roles put them in a unique position to understand the needs and concerns of patients, residents and their families.

Nurses are a crucial member of the multidisciplinary healthcare team, therefore it is important that nurses are involved in multidisciplinary research activities. Collaboration with other disciplines provides a more rounded approach to research. Furthermore, collaboration with other institutions and organisations adds to the significance of the research, and this is particularly relevant when it comes to translating research findings into real world practices. This impacts not only Cabrini but also has the potential to impact at a state, national and international level.

The Cabrini Monash University Department of Nursing Research is affiliated with the Monash Partners Academic Health Science Centre and has collaborated with various institutions across Australia on research projects over recent years.

Highlights

Not surprisingly, research projects have been influenced by the COVID-19 pandemic over the past year. Some research projects have been delayed due to difficulty accessing clinical areas in hospitals, however several projects focusing on COVID-19 have also commenced and are highlighted here.

Coronavirus in Victorian Healthcare and Aged care workers (COVIC-HA) Cohort Study
A large multicentred study funded by the Victorian Government and WorkSafe Victoria, the COVIC-HA study will examine the effects of the COVID-19 pandemic on the health and wellbeing of healthcare and aged Care Workers in Victoria, and the preparedness and responses of their workplaces. Study findings will be used to inform responses and supports that are matched to the needs of workers, and designed to safeguard their health and wellbeing, now and in the future. Cabrini is one of the key study sites together with Alfred Health, Monash Health, Peninsula Health, Ambulance Victoria, Baptcare and the Monash Practice Based Research Network.

The COVID-19 Effect study
The infection prevention challenges presented by COVID-19 are unprecedented. To prepare for the admission and treatment of patients with or suspected with COVID-19, a number of new and modified infection prevention initiatives have been implemented across Cabrini and other healthcare sites. Whilst the use of PPE, hand hygiene and cleaning are fundamental in every infection prevention program, the heightened awareness COVID-19 has introduced may mean there is possibly increased compliance with infection prevention activities. At the same time, whilst preventing the spread of COVID-19, these activities will also prevent many other types of infection.

The overall aim of this study is to measure if there has been any effect on healthcare associated infection rates as a result of the increased infection prevention awareness brought about by COVID-19. Led by our department, this study is being conducted together with researchers from Alfred Health and the University of Newcastle.

Dr Lucille Kerr joins the team
Dr Lucille Kerr, Lucy, joined the Cabrini Monash University Department of Nursing Research team in October 2020 as a Research Fellow. Lucy's background and expertise in qualitative research and her clinical experience in cancer nursing will significantly add to the capacity of the Department.

Nurses are a crucial member of the multidisciplinary healthcare team, therefore it is important that nurses are involved in multidisciplinary research activities.

STAFF

HEAD OF DEPARTMENT

Associate Professor Philip Russo

RESEARCH FELLOW

Dr Lucille Kerr

RESEARCH ASSISTANT

Elizabeth Todio

PHD STUDENTS

Ali Tehrani (Monash University 2019-)
Angela Ballard (Monash University 2020-)
Pheona van Huizen (Monash University 2020-)

MASTER OF ADVANCED PRACTICE

Khanh Truong (Monash University 2019-)

CABRINI MEDICAL STAFF RESEARCH SCHOLARSHIP

Nicole Chew (Monash University 2021)

Left: Healthcare PPE use at Cabrini during the COVID-19 pandemic.

The COVID-19 and Cancer study

The COVID-19 pandemic has disrupted all areas of healthcare including the areas of cancer and palliative care. People with cancer are a vulnerable population, and cancer care teams may be anxious about making decisions that balance the risks associated with delaying cancer treatment and potential exposure to COVID-19 infection. Stress and social isolation amongst patients is likely to be high. Service delivery has changed in a variety of ways to accommodate infection prevention measures. As a result of the disturbances from the COVID-19 pandemic, people with cancer and their caregivers may have increased stressors and poor outcomes.

This study aims to document the experiences of cancer patients who were receiving active or palliative care during the COVID-19 pandemic and their caregivers in order to inform future oncology/haematology and palliative care practice during crises. It is anticipated that findings from this project will be available towards the end of 2021.

Dr Lucille Kerr

**POSTDOCTORAL RESEARCH FELLOW,
CABRINI MONASH UNIVERSITY
DEPARTMENT OF NURSING RESEARCH**

Dr Lucille Kerr, Lucy, began her research journey as a nursing graduate in Tasmania. In her clinical career, Lucy worked in oncology and haematology, an area which she remains passionate about. Her research interests include cancer and palliative care, public health issues, marginalised communities, community-based approaches, health promotion and policy. The driving value that saw her embark on research was the ability to improve the health and wellbeing of communities through meaningful engagement. She believes strongly in the importance of research conducted by nurses, who have intimate knowledge and experience concerning patient care.

Lucy's previous research centred on issues relating to health and cancer care access and utilisation for a marginalised population, the trans and gender diverse community. After moving to Melbourne for work and study, she completed her PhD at the Australian Research Centre in Sex, Health and Society at La Trobe University under the supervision of Associate Professors Christopher Fisher and Tiffany Jones. Another area in which Lucy has significant experience in is the sexual health education and promotion of young people, having worked on the National Survey of Secondary Students and Sexual Health, an ongoing longitudinal study that began in the early 1990s.

Keen to pursue research, Lucy joined the Cabrini Monash University Department of Nursing Research towards the end of 2020. She is currently working on two projects, one exploring the experiences of people with cancer during the COVID-19 pandemic and another that is examining the effect on healthcare associated infection rates from infection prevention measures implemented to combat COVID-19.

Since childhood, Lucy has been an avid reader and this is reflected in her research life which trends more towards qualitative approaches, which she finds similar to the narratives found in books. Whilst also using quantitative methods, Lucy greatly appreciates the intricacies and depth that can be found in qualitative studies.

In the future, Lucy wants to help build the recently formed Department of Nursing Research. This includes involving more practicing nurses in research and supporting them to conduct their own projects to improve patient care, and ensuring that all studies conducted at the department are disseminated to the appropriate audiences.

Lucy believes strongly in the importance of research conducted by nurses, who have intimate knowledge and experience concerning patient care.

PROFESSOR MARK FRYDENBERG

Department of Urology

GRANT FUNDING HELD
$9.13m

PUBLICATIONS
20

CLINICAL TRIAL
1

The Department of Urology joined Cabrini Research in July 2019 under the leadership of Professor Mark Frydenberg who has been actively researching this field for many years. The main area of research of the department is in the management of urological malignancies with a particular focus on prostate cancer. The department has had a marked expansion in its trial portfolio with a minimum of six new clinical trials to commence at Cabrini in 2021.

Highlights

^{89}ZrPET trial

We are trialling ^{89}Zirconium-labelled girentuximab, a diagnostic agent in clinical development that targets clear cell renal cell carcinoma. The trial examines the use of ^{89}Zirconium-labelled girentuximab PET (^{89}ZrPET) scanning in the diagnosis of small indeterminate renal cancers. Conventional imaging methods cannot reliably distinguish benign solid lesions from renal cell carcinoma, often leading to the difficult decision of whether to perform surgery early only to find out it was benign, or refrain from surgery and the patient potentially progresses to aggressive disease. Biopsies guided by ultrasound or computed tomography (CT) are sensitive and specific but invasive for the patient. ^{89}ZrPET scanning technology is non-invasive in its ability to detect small cancer masses and may assist patients in avoiding biopsy and even surgery unnecessarily for these lesions. Overall the major benefit for the patient is more personalised care where tumours can be more accurately diagnosed and therapies instituted with as much information as possible.

Development of prostate cancer derived xenografts

At a laboratory level, the main highlight has been the collaboration with Professor Gail Risbridger and the Prostate and Breast Cancer Research Group in the Department of Anatomy and Developmental Biology at Monash University. The collaboration has led to the development of patient prostate cancer derived xenografts in the laboratory from all different stages of the prostate cancer journey. Xenograft models are developed by taking tumour tissue from prostate cancer patients during surgery and then implanting them under the skin of laboratory mice genetically bred to not reject human tissue. Xenograft models allow *in vivo* testing and have enormous utility as a platform to test new drugs and therapeutics so that patients can obtain the very best treatment for their stage of disease. Our xenograft models are being increasingly used by pharmaceutical companies to test new therapeutics in prostate cancer.

^{68}Ga-PSMA-11 PET European Urology Oncology publication

The department's work on ^{68}Gallium-labelled prostate-specific membrane antigen positron emission tomography (^{68}Ga-PSMA-11 PET) data and the relationship of Standardized Uptake Value (SUVmax) to tumour grade and the prediction of adverse pathology at the time of radical prostatectomy was successfully published in the European Urology Oncology journal in 2021. To date it is the largest published series comparing ^{68}Ga-PSMA-11 PET/CT and multiparametric magnetic resonance imaging (mpMRI) in quantifying biopsy pathology in men with localised prostate cancer. We found that ^{68}Ga-PSMA-11 PET/CT has high sensitivity for clinically significant prostate cancer, and that the higher Gleason Grade (GG) group 3–5 tumours are associated with higher SUVmax than GG 1–2 tumours and benign lesions. In addition, SUVmax predicts GG 3–5 disease, independent of clinical and mpMRI findings. Our findings suggests that SUVmax holds diagnostic utility alongside existing clinical variables and that ^{68}Ga-PSMA-11 PET/CT may be a useful adjunct to mpMRI in better risk stratification of intermediate-risk prostate cancer.

Recurrent prostate cancer study

The department is set to publish ground-breaking research looking at the best way to locate recurrent prostate cancer in patients which will change the future for thousands of people. The research, titled 'Can paired ^{68}Ga PSMA PET CT Scan and multiparametric MRI enable better diagnosis and treatment of biochemical recurrence post radical prostatectomy?' looked at ^{68}Ga-PSMA PET and multiparametric MRI (mpMRI), new imaging modalities that have been proven to detect recurrent prostate cancer more accurately, and whether the addition of the MRI scan had a role to play in picking up local recurrence. The study highlights the value of MRI in the detection of local recurrences. Having both scans improved diagnosis and guided better treatment selection for patients. Ultimately, it will change how patients with recurrent prostate cancer are treated. Former Cabrini medical student Dr Kavitha Gnanasambantham was awarded the Cabrini Research medical student best presentation award for her work on the project.

^{89}ZrPET scanning technology is non-invasive in its ability to detect small cancer masses and may assist patients in avoiding biopsy and even surgery unnecessarily for these lesions.

Theronostics and Nanoknife technology

In 2021, theronostics is likely to be introduced to Cabrini. Theronostics is a personalised approach to treating cancer and uses a combination of PET scan imaging and peptide receptor radionucleotide therapy (PRRT). The Department of Urology is excited to have the new technology available at Cabrini which will allow novel trials to start for patients with advanced prostate cancer.

Cabrini may also see the introduction of Nanoknife focal therapy in 2021. Nanoknife is a painless and minimally invasive surgical technique used in the treatment of prostate cancer. It uses short duration, focused electric pulses to kill cancer cells, leaving surrounding healthy cells untouched, lessening side effects. The department will be undertaking research on the utility of this technology by treating prostate cancers whilst hopefully also reducing patient morbidity.

Right: Professor Mark Frydenberg.

STAFF

HEAD OF DEPARTMENT

Professor Mark Frydenberg

CONSULTING UROLOGISTS

Associate Professor Daniel Moon, Urological Surgeon
Mr Uri Hanegbi, Urological Surgeon
Associate Professor Jeremy Grummet, Urological Surgeon
Mr Ross Snow, Urological Surgeon
Mr Adam Landau, Urological Surgeon

RESEARCH ASSOCIATES

Professor Gail Risbridger
Associate Professor Renea Taylor
Dr Mitchell Lawrence

STUDENTS

Alan Xue
Chinni Vidyagar
Arveen Kalapara

DR ANNEMARIE LEE

Centre for Allied Health Research and Education

GRANT FUNDING HELD	PUBLICATIONS	PRESENTATIONS	CLINICAL TRIALS
$1.1m	10	6	4

Our vision is to be the leader in allied health research in Australian private healthcare. We strive to improve the health of Cabrini patients and the local community through development and implementation of clinically focused, high-quality and robust research, which translates into best clinical practice.

Centre for Allied Health Research and Education (CAHRE) research activities supported in 2020-21 aligned with these areas:

- Rehabilitation and management of chronic conditions and comorbidities
- Exercise rehabilitation and wellness interventions for oncology patients and their caregivers
- Clinical education and simulation

Investment in our allied health staff to increase research capability is essential for delivering high-quality clinical services and retaining the best clinicians. We continue to be characterised by our commitment to allied health education that focuses on enhancing patient care and developing future health service leaders. We strive to creatively deliver student education, and are constantly and actively seeking collaboration within our network and university partners. We are open to embracing and discussing new research opportunities, including incorporating more interprofessional learning for staff and students.

The opening of the Exercise Laboratory in the Cabrini Cancer Institute provides an exceptional opportunity to explore research opportunities centered on the Cabrini themes, and to work alongside skilled exercise physiologists whose research interest and skills focus on the role of exercise as medicine for the management of cancer. Additional research will focus on the wellbeing and supportive care needs of cancer survivors, by developing, conducting and evaluating intervention studies.

Highlights

Milly Bell (physiotherapist and PhD candidate) is leading a pilot study of the clinical efficacy of SUpported Motivational InTerviewing (SUMIT) which targets physical activity following completion of a Good Life with osteoarthritis Denmark (GLA:D®) Australia program for people with knee osteoarthritis. Supported by a Cabrini Foundation grant, this study will compare the effects of motivational interviewing with usual care on pain, joint-related quality of life and health-related quality of life.

Dr Jason Wallis (physiotherapist and Research Fellow) has led two qualitative studies related to osteoarthritis management. In the first he explored the views of orthopaedic surgeons, rheumatologists and general practitioners regarding osteoarthritis management. Medical professionals recognised the role and relevance of nonsurgical management with a focus on exercise therapy. In the second study he established barriers and enablers for uptake of the GLA:D® Australia program for people with hip and knee osteoarthritis from the perspective of patients and medical professionals. Key findings highlighted the barriers of access, misinformation about osteoarthritis while enablers included opportunities to avoid joint replacement surgery and efficient referral processes. This knowledge highlights the importance of improved reimbursement models and better promotion and educational resources related to the GLA:D® Australia program for those with osteoarthritis.

Dani Feil (physiotherapist) was awarded a Cabrini Foundation Quality Improvement grant of $15,000 for her project "Living well with secondary breast cancer – the clinical outcomes and patient perceptions of a combined exercise and educational support group". This project aims to address the unmet needs of women with advanced breast cancer by introducing a dedicated eight-week rehabilitation program incorporating exercise, education and peer support to Cabrini patients. Knowledge of patient perceptions of this program and its clinical effects on functional exercise capacity, symptom and quality of life will inform future iterations of this intervention in other tumour groups to ensure that it meets the needs of the Cabrini community.

Investment in our allied health staff to increase research capability is essential for delivering high-quality clinical services and retaining the best clinicians.

My Therapy trial

Following the success of the pilot study conducted at Cabrini Health, our department is part of an NHMRC partnership grant funded trial for My Therapy. Led by Dr Natasha Brusco, and in collaboration with Eastern Health, Alfred Health, Healthscope, Monash University and La Trobe University, a step wedged cluster randomised controlled trial will examine the effects of a self-managed program of occupational therapy and physiotherapy exercises and tasks for patients undergoing rehabilitation. My Therapy is designed to increase the dosage of therapy participation during rehabilitation. The effects will be determined by a range of clinical outcomes together with cost effectiveness. The impact of My Therapy on self-management and empowerment and the fidelity and quality of implementation will also be examined.

Right: Dr Annemarie Lee (left) and Louise Tilley.

STAFF

HEAD OF DEPARTMENT

Dr Annemarie Lee

Sophie Jennings, Research Assistant
Louise Tilley, Research Assistant
Fiona Dulfer, Site Coordinator My Therapy Project
A/Prof Helena Frawley, Honorary Research Fellow
Dr Tash Brusco, Honorary Research Fellow
Dr Kuan-Yin Lin, Honorary Research Fellow
Mr John Pierce, Honorary Research Fellow
Ms Sara Whittaker, Honorary Research Fellow
Dr Christina Ekegren, Honorary Research Fellow

STUDENTS

Sonya Imbesi (Physiotherapy) – Master of Cancer Science at University of Melbourne
Helen Kugler (Physiotherapy) – PhD candidate enrolled at La Trobe University
John Pierce (Speech Pathology) - PhD candidate enrolled at La Trobe University
Lewis Cattley-Stone – Bachelor of Physiotherapy (Monash University)
Pardis Sorti – Bachelor of Physiotherapy (Monash University)
Jack Mason – Bachelor of Physiotherapy (Monash University)
Sarah Castricum – Bachelor of Physiotherapy (Monash University)
Irene Terzopoulos – Bachelor of Physiotherapy (Monash University)
Cindy Wong – Bachelor of Physiotherapy (Monash University)
Chanh Tran – Bachelor of Physiotherapy (Monash University)

PROFESSOR DAVID KISSANE AC

Szalmuk Family Psycho-oncology Research Unit

GRANT FUNDING HELD
$1.32m

PUBLICATIONS
30

CLINICAL TRIAL
1

The discipline of Psycho-oncology focuses on helping patients adapt to the diagnosis and treatment of cancer, from early-stage disease to survivorship and, when disease is advanced, to palliative care and eventually bereavement care for the surviving family. In this sense, it is both patient and family-centred in its orientation.

Clinical services are delivered by psychiatrists and psychologists through the Cabrini Haematology and Oncology Centre. Research occurs in parallel and focuses on advancing adaptation to the illness.

Highlights

During the 2020-21 year we have sustained our demoralisation research program through work on validation of a clinical interview to diagnose conditions such as adjustment disorder with demoralisation. We have also maintained our trial of Meaning and Purpose (MaP) Therapy as a form of treatment for demoralised patients, and begun work on the national implementation of screening for psycho-existential distress with the Psycho-existential Symptom Assessment Scale, a project that we were delighted to have funded by the Commonwealth Department of Health.

This assessment and management model seeks to intervene early, prevent hospitalisation, relieve suffering and enhance quality-of-life in a most cost-effective way.

Implementation of psycho-existential wellbeing through screening and treatment

Currently, patients with unrecognised depression, unaddressed demoralisation and unabating anxiety account for the most vulnerable patients with advanced cancer, with limited access to skilled staff and evidence-based management. These under-served patients are in need of treatments to optimise their adjustment and prevent suicidal thinking. Several, evidence-based, medication and counselling approaches are available to effectively help these patients, but these remain underutilised in palliative care. Growing out of our research into the mental state of demoralisation, we have developed a screening tool to better identify these patients in need.

The Commonwealth Department of Health, through its program of dedicated grants for palliative care, awarded in conjunction with the University of Notre Dame Australia, Professor David Kissane AC and Associate Professor Natasha Michael, a grant of $1.05 million to implement Psycho-existential Screening with the Psycho-existential Symptom Assessment Scale (PeSAS) across six states and two territories over the next three years. Train-the-trainer workshops with experiential role-plays in a simulated setting will complement the online educational program which will be incorporated within the established End-of-Life Essentials e-learning platform. This education will build skills to converse about and assess psycho-existential wellbeing, familiarise staff with medication algorithms developed by experts and create local champions.

Unrecognised psycho-existential suffering accounts for as many hospital admissions and extended lengths of stay as unmanaged physical symptoms. This assessment and management model seeks to intervene early, prevent hospitalisation, relieve suffering and enhance quality-of-life in a most cost-effective way. The PeSAS tool has been incorporated into the PalCare Medical Record which is particularly used by community services across our country. Benchmarking outcomes with comparable services locally and nationally will create quality improvement goals. Sustained training and supervision of local champions across the three funded years will upskill healthcare providers and embed attention to this under-recognised and under-served population of palliative care patients.

Above: Dr Kathy Hauser, Cabrini Health Palliative and Support Services, and Professor David Kissane AC.

STAFF

HEAD OF DEPARTMENT

Professor David Kissane AC

Dr Irene Bobevski, Research Fellow
Genevieve Murphy, Research Nurse
Jill Wilson, Research Nurse

STUDENTS

Felicity Moon, PhD, Monash University
Associate Professor Natasha Michael, PhD, University of Notre Dame Australia
Dr Lucy Kernick, PhD, University of Notre Dame Australia
Dr John Wenham, PhD, University of Notre Dame Australia
Dr Merlina Sulistio, MMed, University of Notre Dame Australia

ASSOCIATE PROFESSOR VINEET SARODE

Intensive Care Research Unit

PUBLICATIONS 12

PRESENTATIONS 7

CLINICAL TRIALS 5

The Cabrini Intensive Care Unit (ICU) admits approximately 1570 patients per year following procedures such as cardiothoracic and abdominal surgery as well as medical admissions requiring multi organ support. The average length of stay in our unit is 48 hours.

Research in the ICU is about questioning current practices and determining how we can get the best outcomes for our patients based on the evidence found. It is increasingly trending towards examining patient outcomes post ICU discharge by following up patients for extended time periods to determine quality of life and disability as well as the standard outcome measures such as morbidity and mortality. Through this extended follow up of patients, we hope to ascertain the long-term impacts an ICU admission can have on both patients and their families – emotionally, physically, financially and socially. This would ultimately lead to standard practices and procedures possibly being changed or modified to ensure beneficial long-term outcomes for our patients.

The COVID-19 pandemic has presented challenges to all healthcare workers and Cabrini's ICU is no exception. It is through research that we can learn more about this virus and the immediate impact it has on patients and communities as well as the medium to long-term impacts, giving us more knowledge in uncertain times.

Highlights

INTUBE study

The International Observational Study to Understand the Impact and Best Practices of Airway Management in Critically Ill Patients (INTUBE) was the largest ever trial of intubations in the critically unwell. It included over 3000 patients from almost 200 hospitals in 29 countries across five continents. Associate Professor David Brewster was the national coordinator for Australia and New Zealand and a co-author of the paper. This paper was the first true multinational study to demonstrate the significant morbidity and mortality associated with intubations in this patient group, as well as modifiable factors such as the choice of both operator and equipment.

Vincenzo Russotto, Sheila N Myatra, John G. Laffey, Elena Tassistro, Laura Antolini, Philippe Bauer, Jean Baptiste Lascarrou, Konstanty Szułdrzyński, Luigi Camporota, Paolo Pelosi, Massimiliano Sorbello, Andy Higgs, Robert Greif, Christian Putensen, Christina Agvald-Öhman, Athanasios Chalkias, Kristaps Bokums, David J Brewster, Roberto Fumagalli, Antonio Pesenti, Giuseppe Foti and Giacomo Bellani (for INTUBE Study Investigators). (2021) Intubation-related morbidity, mortality and practice in critically ill patients from 29 countries. JAMA. 325(12):1164–1172. doi:10.1001/jama.2021.1727.

A/Prof David Brewster has delivered a number of presentations across the year. Most notably he was the keynote speaker at the Difficult Airway Society (DAS) ASM (London 2020), speaking on "Defining aerosol generating procedures" and a member on the expert panel discussion "Airway management during COVID-19". Locally, he was the plenary speaker and member on the expert panel discussion at the Australian and New Zealand College of Anaesthetists (ANZCA) ASM (Melbourne 2021), speaking on the "Airway national guidelines during COVID-19".

Associate Professor David Brewster and Shannon Simpson.

The COVID-19 pandemic has presented challenges to all healthcare workers and Cabrini's ICU is no exception. It is through research that we can learn more about this virus...

National guidelines to reduce the risk of COVID-19 aerosol transmission

Aerosol transmission of COVID-19 is of particular concern because it can remain suspended in the air and is easily produced by actions such as coughing, sneezing, shouting and singing. This puts frontline healthcare workers at greatest risk. The consensus statement on Safe Airway Society principles of airway management and tracheal intubation specific to the COVID-19 adult patient group was planned on 11 March 2020, when an urgent need for guidance in Australia and New Zealand for both clinical practice and staff preparation for the COVID-19 pandemic was identified.

Led by A/Prof Brewster, the Safe Airway Society board assembled 14 experts from Australia and New Zealand to prepare the statement. The consensus statement recommended safe, simple, familiar, reliable and robust practices that should be adopted for all episodes of airway management for patients with COVID-19.

These crucial national guidelines were immediately widely endorsed by all relevant specialty colleges and airway societies in Australia and New Zealand. It was used by almost all hospitals to guide clinicians in the airway management of COVID-19 patients and help with simulation training from early in 2020 to keep staff in ICU, theatre and emergency departments safe. The consensus statement was published in the Medical Journal of Australia in June 2020 and had over 330 citations in its first year.

Brewster DJ, Chrimes N, Do TB, et al. (2020) Consensus statement: Safe Airway Society principles of airway management and tracheal intubation specific to the COVID-19 adult patient group. *Med J Aust*. 212(10):472-481. doi:10.5694/mja2.50598.

STAFF

Associate Professor Vineet Sarode – Director Intensive Care Unit
Associate Professor David Brewster – Deputy Director Intensive Care Unit, Head of ICU Research
Dr Deirdre Murphy – Intensive Care Physician
Dr Steve Philpot – Intensive Care Physician
Professor Warwick Butt – Intensive Care Physician
Shannon Simpson – ICU Research Coordinator

B MED SCI (MONASH)

Kelly Hotchin (2020)
Calvin Lu (2021)

Right: Associate Professor David Brewster (left) and Associate Professor Vineet Sarode.

DR IAN TURNER

Alan, Ada and Eva Selwyn Emergency Department

GRANT FUNDING HELD

$610k

PUBLICATIONS

23

The Cabrini Emergency Research Department is interested in novel and innovative approaches to improve the care we provide our community. Our focus for emergency medicine research is looking at novel strategies for emergency medicine care that can enhance the patient experience for those receiving treatment within our emergency department (ED).

We are interested in collaborating with universities and other health services to implement improvements that can positively affect the experience, safety and efficiency of attending an ED. Our aim is to increase the research output of our department over the coming years. Our success in recent years in terms of publications demonstrates significant progress towards this goal.

Highlights

We have made significant progress in multiple research projects. This includes ongoing research activity exploring the use of My Health Record in the ED as well as progress in the follow up phone call research projects and interactive screens in the ED waiting room research project. In the coming year we will be focusing on the Cabrini ED follow up phone call project. This project involves highly trained ED nurses routinely contacting patients after discharge home from Cabrini ED to track their progress and support the provision of ongoing clinical advice to our patients. This study is being conducted prospectively over a 12-month period to explore the patient experience following discharge from Cabrini ED and aims to allow for ongoing future improvements to the care that we provide our patients.

The service provides an opportunity to clarify any medical questions or concerns, provide information on symptom management, patient safety, reassurance and a platform to give feedback.

Right: Dr Dane Horsfall (left) and Dr Ian Turner.

The value and efficacy of follow up calls post an emergency department visit

Most patients who present to the ED receive treatment and are discharged home from the department, however, there is very little research regarding these heterogeneous populations and their post discharge needs. Cabrini ED provides discharged patients with a telephone follow-up call to check on their progress and offer advice on follow-up care. The goal of this study was to establish the value and efficacy of a telephone follow up service on meeting patients' needs post discharge from the ED.

Semi-structured interviews of patients discharged from ED and nursing staff who conduct the phone calls identified four key themes: improved patient safety and experience, ability to give feedback, provide support and clarity, and provide convenience and reassurance.

Through a qualitative, inductive approach, this study was able to garner a rich understanding of the patients' and nurses' perspectives on the value and benefits of the telephone follow-up service post discharge from the ED. This study has been able to demonstrate that the telephone follow-up service offers value to patients as it was reported that, even though they were not that unwell, it gave them confidence and re-assurance that assistance is easily accessible when needed. The service provides an opportunity to clarify any medical questions or concerns, provide information on symptom management, patient safety, reassurance and a platform to give feedback.

STAFF

Dr Ian Turner, Director Emergency Medicine
Dr Lisa Brichko, Emergency physician
Associate Professor Keith Joe, Emergency physician
Professor Katie Walker, Emergency physician
Associate Professor Michael Ben-Meir, Emergency physician
Dr Gabriel Blecher, Emergency physician
Blessing Gazi, ANUM Emergency Department

PHD STUDENT

Alexandra Mullins (Monash University 2019-)

Digital and data-driven healthcare improvement

Monash University's Graduate Research Industry Partnership (GRIP) program was developed in response to the rising demand for researchers with interdisciplinary capabilities and the readiness to apply their expertise to solving real world problems in industry. Cabrini is a partner in the Monash University GRIP Program, co-designing the strategies and projects that have brought together experienced project teams with expertise in research, implementation science and leadership. The breadth of engagement and the translational focus of the PhD projects being undertaken by Alexandra Mullins and Ali Tehrani at Cabrini is reflective of the intent of the GRIP, which exceeds the contributions of traditional PhD projects and ensures tangible impact for Cabrini and the broader Monash Partners network.

Alexandra's PhD focuses on My Health Record, Australia's national electronic health record, and its adoption, use and utility by emergency staff at Cabrini.

Alexandra Mullins

Alexandra is an experienced business development and strategy consultant with a demonstrated history of building strategic partnerships with large-scale stakeholders to deliver national impact, having worked in Australia, Europe and the UK. Since finishing her Honours in Biomechanics over 10 years ago, she has always had an interest in going back to university and pursuing a PhD (specifically to improve her writing and research skills). With her background in business development and working history in industry, Alexandra decided to explore the option of pursuing a PhD that was heavily involved with an industry partner. This brought her to the GRIP program. The GRIP program facilitates the investigation of real-world problems and ensures the rapid delivery of impact across the healthcare sector.

Alexandra's PhD focuses on My Health Record, Australia's national electronic health record, and its adoption, use and utility by emergency department staff at Cabrini. Through this research, she aims to highlight the barriers to use (and explore ways to overcome these), enhance the benefits associated with use and to optimise system design and utility – specifically for clinicians at Cabrini but also to the wider healthcare system.

Following her PhD, Alexandra wants to expand her research to encompass other areas of information systems implementation, and the implementation of My Health Record more broadly across the healthcare value chain (outside of the emergency department) – specifically working with key organisational stakeholders to lead and influence change.

Ali Tehrani

Ali ran his own home electrical appliances business for more than seven years importing products internationally from United Arab Emirates (UAE) and China, and exporting products domestically across cities in Iran. He also worked as a leadership development manager in a corporate business. After moving to Australia in 2010, Ali studied an English course for tertiary education and an International Foundation at the University of Newcastle. In 2011, he started his Bachelor's degree in International Business/International Management at the University of Newcastle and La Trobe University. In 2014, he undertook a Business Honours degree in International Business and Geopolitics at RMIT University and achieved First Class Honours. For less than a year, he voluntarily taught vulnerable children and refugees at Footscray North Primary School and Melbourne Free University.

Since 2016, Ali has worked at RMIT's School of Management where he teaches Managing International Business Responsibly, Cross-Cultural Management, Ethics and Governance, International Business, Issues in International Business and Work Integrated Learning. Ali has experienced coordinating and lecturing courses at RMIT Australia and Singapore. During these years, he has achieved 80 per cent or above in RMIT's Good Teaching Scale (GTS). At RMIT University, Ali also worked as a researcher and presented at conferences including BESSCH (Tehran, Iran), and AIRAANZ (Melbourne, Australia).

In 2019, Ali started his PhD at Monash University in the GRIP program. Ali's research interest is in eHealth, and his research crosses information systems/management, IT governance and healthcare. His research project is about improving patient-centred care through digital change. By evaluating Cabrini's digital infrastructure Ali is aiming to understand the level of innovation, adoption and scaling. He is also exploring the opportunities and the challenges of a few digital systems for Cabrini's stakeholders. This research project is going to help healthcare stakeholders including health policymakers by providing a more patient-centric approach toward health digitisation.

In the future, Ali would like to maintain relationships with the healthcare industry to conduct research in eHealth. Ali believes eHealth is the future of the industry and he would like to play his role in the health of our community.

Ali's research project is about improving patient-centred care through digital change.

Marina Necoski demonstrating PPE training.

02
Education

RICK PEEBLES

Clinical Education Department

STUDENT PLACEMENT DAYS OFFERED
18k

GRADUATE NURSING POSITIONS OFFERED
67

POSTGRADUATE NURSING POSITIONS OFFERED
27

eLEARNING COURSES AVAILABLE
168

The Clinical Education Department has a centralised model of education with a core curriculum informed by organisational risk, workforce requirements and Cabrini's customers. Our department develops resources and training programs for nursing, midwifery and allied health staff to ensure quality standards are maintained throughout our organisation. Our focus is to provide educational opportunities that inspire confidence, professionalism, expertise and excellence in clinical care.

Highlights

Undergraduate program
Supporting the current and future workforce is a central focus for our team. Despite the challenges created by COVID-19 restrictions, Cabrini provided 18,931 placement days for nursing, midwifery and allied health students during the 2020-21 year.

Our primary partnerships remain strong for nursing, midwifery and allied health with Monash University, Australian Catholic University (ACU) and ACU College, La Trobe, Swinburne University and Holmesglen. Across the year, Allied Health and Ambulatory Services worked collaboratively with our education providers to support student programs across seven disciplines and three education provider partnerships.

Graduate program
Our Transition to Professional Practice (Graduate) Program for newly registered nurses, enrolled nurses and midwives is designed to support the transition from an undergraduate into the workforce. The structured program enables consolidation of clinical skills whilst enhancing critical thinking and clinical reasoning, in a supported learning environment. The program also incorporates simulation scenarios based on Cabrini's risk data with a focus on patient deterioration, communication skills and cognitive impairment. In 2020-21, our team provided learning opportunities and clinical support to over 67 graduates. Clinical Education remained agile to support an additional three novice intakes throughout the year to support workforce shortages.

Postgraduate program
Cabrini offers several postgraduate programs to support nurses to expand their scope of practice and pursue their personal and professional development goals. We offer courses in Cancer Nursing (University of Melbourne), Emergency Nursing (Monash University), Intensive Care Nursing (Monash University), Perioperative Nursing (Monash University) and Cardiac Nursing (La Trobe University).

We have a team of dedicated Clinical Support Nurses who provide clinical learning opportunities to assist course participants to contextualise their academic learning. There are currently 27 postgraduate nursing students progressing well through their studies alongside five allied health staff members who are undertaking postgraduate qualifications.

Curriculum development
Nursing, allied health and medical staff have access to a wide variety of professional development opportunities at Cabrini. Cabrini's eLearning platform provides staff with access to eLearning courses that support their clinical practice and aligns with workforce needs. This platform also offers bookings into face-to-face workshops where staff can apply their knowledge, develop new skills and collaborate with peers. Our curriculum development team have developed 34 new courses throughout 2020-21.

Clinical support nurses
We have 11 Clinical Support Nurse (CSN) roles across Cabrini that are designed to support novices, postgraduates and clinical staff. There are two additional CSN roles this year. The Infection Prevention and Control CSN and Surgical CSN positions ensure timely, context-relevant teaching occurs at the patient's bedside. In addition to this we have a dedicated team of clinical support nurses (clinical facilitation) who provide support to our undergraduate students and their preceptors.

Simulation Centre
Clinical simulation is used in the training and assessment of healthcare professionals. Cabrini's simulation activities provide engaging learning opportunities that promote the delivery of safe and high-quality patient care. The Simulation Centre has state of the art mannequins and equipment that provide staff and students with the opportunity to practice their skills in a safe learning environment prior to performing these clinically. Although COVID-19 restrictions did limit our capacity to deliver simulation workshops, the Clinical Education team redesigned several courses to enable safe attendance. Last year we trained 93 staff in Advanced Life Support in the Simulation Centre between July and December, with a total of 112 staff attending during the 2020-21 financial year.

COVID -19 response and support
The Clinical Education COVID-19 response continues to focus on Personal Protective Equipment (PPE) training and simulation training in the Emergency Department, Perioperative Services and Intensive Care Unit (ICU). Since COVID-19 first presented in Australia, Clinical Education has provided training for over 2000 clinical and non-clinical staff. This training is essential in ensuring our staff, patients and visitors are protected and safe. In addition to face-to-face PPE training, Clinical Education has also developed three eLearning courses to standardise practice related to infection prevention and control. Generous support from our donors enabled the creation of an Infection Prevention and Control Clinical Support Nurse trial. The role has been critical in supporting our clinicians with just-in-time training related to aseptic technique and infection prevention and control. The trial commenced in October 2020 with over 90 bedside education encounters taking place during the financial year.

Graduate Nurse Raj Kayastha (left) being supervised by Transition to Professional Practice Program Educator Louise Suttie.

STAFF

DIRECTOR

Rick Peebles

ADMINISTRATION SUPPORT

Mahir Muntazim, Learning System Administrator
Donna Li, Infrastructure & STP Coordinator
Leesa Horrigan, Undergraduate Student Coordinator
Jacky Fernandez, Clinical Placement Administrator

CLINICAL EDUCATION AND ALLIED HEALTH EDUCATION TEAM

Tanya Harding, Clinical Education Curriculum Developer
Amanda Peat, Quality and Safety Education Curriculum Developer
Stefanie Adlam-Smeele, Transition to Professional Practice Educator and Undergraduate Educator
Louise Suttie, Transition to Professional Practice Educator
Natalie Horvath, Perioperative Educator
Tegan Proctor, Adult Deterioration and Resuscitation Educator
Gina Moschos, Paediatric/Newborn Deterioration and Resuscitation Educator
Sophie Jennings, Allied Health Educator
Anie Abraham, Medical Clinical Support Nurse
Irene Zhao, Perioperative Clinical Support Nurse
Lydia Burnage, Midwifery Clinical Support Nurse
Sophie James, Cardiac Clinical Support Nurse
Michelle Wigg, Perioperative Clinical Support Nurse
Jo Sinclair, Perioperative Clinical Support Nurse
Clare McCosker, Intensive Care Clinical Support Nurse
Madeline Marcelino, Emergency Department Clinical Support Nurse
Catherine Salita, Emergency Department Clinical Support Nurse
Tibor Withers, Infection Prevention and Control Clinical Support Nurse, Cancer and Palliative Care Clinical Support Nurse
Selina Green, Surgical Clinical Support Nurse
Lauren Boyce, Physiotherapy Clinical Supervisor
Ran Li, Physiotherapy Clinical Supervisor
Annie Mirabile, Physiotherapy Clinical Supervisor

CLINICAL PLACEMENT FACILITATORS

Marina Necoski
Chris Stafford-Arnold
Gail Iglesia
Cassie Lieschke
Megan Hayes
Claire Loveridge
Joshua Cameron
Gabrielle Gilbert
Angela Forsyth
Nicole Milne
Jordan Lakin
Sabrina Velik

ACKNOWLEDGEMENT OF STAFF WHO HAVE LEFT THE EDUCATION DEPARTMENT (2020-21)

Lauren Williams, Clinical Education Curriculum Developer
Abby Falla, Transition to Professional Practice Educator
Kelly Sherman, Paediatric Deterioration and Resuscitation and Undergraduate Educator
Illona McArthur, Cancer and Palliative Care Clinical Support Nurse
Andrea McDonald, Cardiac Clinical Support Nurse
Margot Dobie, Perioperative Clinical Support Nurse
James Gaudin, Physiotherapy Clinical Supervisor
Jaya Nair, Infection Prevention and Control Nurse
Barb Miles, Learning System Administrator

ASSOCIATE PROFESSOR DAVID BREWSTER

Department of Medical Education

MEDICAL STUDENT RESEARCH SCHOLARSHIP RECIPIENTS

10

FULL-TIME MONASH UNIVERSITY STUDENTS

41

In the face of the COVID-19 pandemic, the students demonstrated wonderful resilience. This was most evident in their exam performance and commitment to the annual Cabrini Senior Medical Staff Association student research program. The students commitment was inspiring to see despite so many lockdowns and periods when we were forced to study at home.

Highlights

Cabrini specialists supporting our students
With our third-year students predominantly learning from home, the Cabrini specialists rose to the occasion and delivered many remote lectures covering core curriculum topics from their specialties. Students highly valued these sessions and attended with great enthusiasm. This was imperative in keeping our students engaged and connected.

Student wellbeing day
During the year with the students facing so many challenges, mental health and wellbeing was at the forefront of our minds. Taking this into account, we developed a completely remote 'wellbeing day' to relieve the students of their university commitments and focus on themselves and each other. We planned a day where students could connect for an informal chat and coffee in Zoom breakout rooms. We then arranged a one-hour cardio fitness session with a professional instructor followed by a trivia afternoon with prizes run by Dr Steve Philpot. The day was a huge success and the feedback from the students was overwhelmingly positive.

Summer placement program
Since the third-year students had missed so much of their clinical placement program, with the support of our clinical supervisors, Cabrini agreed to offer a 'summer placement' opportunity after exams. This was a voluntary placement available to all third-year students to be undertaken in their own time. Fifteen of our students signed up and thoroughly enjoyed their placement and the wonderful support from our doctors. This was a small consolation for the challenges they faced throughout the year.

Awards for Cabrini Clinical School in 2020
- Monash University student choice award for distinguished teaching – **Dr Nick Gelber**
- Monash Year 3 Top student award – **Chelsea Lin**
- University of Notre Dame Student choice award for distinguished teaching – **Associate Professor Anna Rosamilia**

Monash University undergraduates
As a member of the Central Clinical School for Monash University, Cabrini provides high-quality clinical placements for students from Monash University's Bachelor of Medical Science Doctor of Medicine (MD) course. Associate Professor David Brewster and Jennie McInerney continue to develop and oversee the undergraduate educational program at Cabrini.

Third-year program
Thirty medical students were allocated to Cabrini for the entire year in various specialties of medicine and surgery in 2020. Due to the COVID-19 pandemic, the students were not permitted on placement for the majority of the year. Consequently, most of their learning was delivered remotely via Zoom including their "Problem-Based Learning" program at The Alfred Hospital and our extremely popular "Curriculum Enhancement" program at Cabrini. Our specialists offered more lectures (also via Zoom) to our students to enhance their learning and keep them engaged.

Naomi Snowden ran some intensive procedural skills training and simulation teaching to further complement their development and make up for lost time when restrictions were eased. Students received a weekly bedside teaching session from their tutors via Zoom and had summer research grants available.

Fifth-year program
Throughout the year, we had 11 students allocated to Cabrini for their pre-intern rotations at Cabrini. Due to COVID-19, students were not permitted to rotate to other hospitals after rotation one, so they stayed at Cabrini for

The students form a valuable part of the clinical team and contribute to patient care. They engage in multiple education programs (weekly case discussions, radiology sessions and registrar teaching programs) and learn to function in inter-professional working environments.

Left to right: Associate Professor David Brewster, Dr James Ballantyne ICU Registrar, and Mr Matthew Claydon, vascular and endovascular surgeon.

the remainder of the year. Unlike the third-year students, the final year students were permitted to be in the hospital on rotation for the majority of the year. This allowed them to complete their rotations and most importantly graduate to become interns in 2021. Our registrars and supervising specialists provided valuable guidance and preparation to these students in challenging circumstances.

The students form a valuable part of the clinical team and contribute to patient care. They engage in multiple education programs (weekly case discussions, radiology sessions and registrar teaching programs) and learn to function in inter-professional working environments.

University of Notre Dame (UND)
Rotations for UND medical undergraduates were ceased at the initial COVID-19 lockdown in March 2020. Covid-safe plans were established and 51 students returned with reduced time in each rotation. The students and supervisors managed this extremely well. Associate Professor David Brewster works closely with Professor Moyez Jiwa from UND to fully engage these excellent students within our hospital community.

We are grateful to all those clinicians who have supervised the students through this challenging time. We particularly thank those who led and taught in the obstetric and gynaecology rotation and the orthopaedic and rehabilitation rotation as these have been discontinued in 2021 whilst the palliative care and cardiology rotations continue.

The 2020 winner of the Cabrini/Notre Dame Student Choice Award for excellence in teaching was awarded to **Associate Professor Anna Rosamilia**, who has supported the Notre Dame medical student program since its inception. Anna went above and beyond to support and teach our students.

STAFF

CLINICAL DEAN

Associate Professor David Brewster
Cabrini-Monash University Clinical School

CLINICAL SITE ADMINISTRATOR

Jennie McInerney
Cabrini-Monash University Clinical School

CLINICAL EDUCATOR

Naomi Snowden
Cabrini-Monash University Clinical School

Broader Education

Specialist Training Program

The Federally funded Specialist Training Program (STP) extends vocational training for specialist registrars into settings outside traditional metropolitan teaching hospitals, including regional, rural and remote and private hospitals. The program at Cabrini continues to enhance our culture in terms of education, research, team work and patient care, attracting the best clinicians and providing support for our medical student program. This year, Cabrini had 14 positions funded by the Federal Government and directly employed a further 15 positions. A total of 99 doctors rotated through the 29 training opportunities across the year, engaging with 48 supervisors.

Cabrini partnered with five specialist colleges including the Royal Australian College of Physicians, Royal Australasian College of Pathologists, Royal Australian College of Medical Administrators, Australian College of Emergency Medicine and the Royal Australian and New Zealand College of Psychiatrists. Our partner were the Peter MacCallum Cancer Centre, Melbourne Pathology, South West Healthcare, Melbourne Health, St Vincent's Health, Alfred Health and Austin Health.

We express our gratitude to the supervisors. We offer special thanks to Dr Martina Welz who fulfilled the duties of Director of Physician Training for the last two years at Cabrini. Martina has provided excellent support to trainees; assisted with orientation and the design and delivery of our education program; led RACP supervisor training at Cabrini and supported the regular accreditation cycle of physician training positions. Martina handed over to Dr Shehara Mendis in 2021. We look forward to working with Shehara and we thank her for accepting this challenge.

Q & A

The Cabrini Q & A education program is a platform to discuss challenges, innovations and improvements relating to governance, safety, quality and risk management. It is one of the principal vehicles by which Cabrini ensures we are providing our staff with relevant and engaging educational and professional development activities, enhancing their knowledge of evidence-based practice.

The highlight of the Q & A series this year was "Where to from here? An Update on Cabrini Group Strategy and Clinical Services Plan" where our Chief Executive Sue Williams outlined her strategy and responded to questions from the audience of 126 Zoom participants. Feedback included appreciation of the opportunity to ask questions and receive responses beyond scripted documents.

Another session that attracted a large audience was "The Board and I... What is our role at Cabrini?" when participants relished the opportunity to hear from Chairman of the Cabrini Board, Sylvia Falzon and Chair of the Audit and Risk Management Committee, Lisa Harker. Feedback noted the humility of these women who provided insight into their roles which hold high levels of responsibility.

Associate Professor Melita Kenealy chaired "Choose to Challenge... Celebrating Women in Leadership at Cabrini" which also attracted a large audience. The panellists included Professor Helena Teede and Professor Susan Davis AO. Melita was well-researched and engaging. The presenters provided personal and relevant insights. We heard about challenges, barriers and progress being made.

Feedback from the sessions is helpful in designing future sessions. We are grateful to those who raise their questions in the forums and those who suggest future topics. We welcomed Craig Bosworth, Group Director Strategy and Marketing to the team this year. Craig has chaired most of the sessions and added to the professionalism of this educational offering.

Quick Clinical Updates

The Quick Clinical Update education program is designed for specialist trainees but everyone is welcome. The topics are mostly issues that are relevant across the specialities and include new knowledge. Topics this year included

precision medicine, immunotherapy in genitourinary cancers, Covid-19 updates, common therapies for gastrointestinal cancers, drug allergies, recognising depression in the physically unwell patient; and heart failure management. We thank all presenters.

Peter & Judy Lowthian & Family, Lee & Brian Johnstone Library

Driven by our major supporters, Mrs Lee and Mr Brian Johnstone, the library changed its name to further acknowledge the support of Peter and Judy Lowthian and Family. Associate Professor Peter Lowthian (formerly the Executive Director of Medical Services and Clinical Governance at Cabrini) was a driving force behind the library's vision to become an online electronic library to support all health professionals.

The library is truly indebted to A/Prof Lowthian. We also wish to thank Lee and Brian for their ongoing financial support.

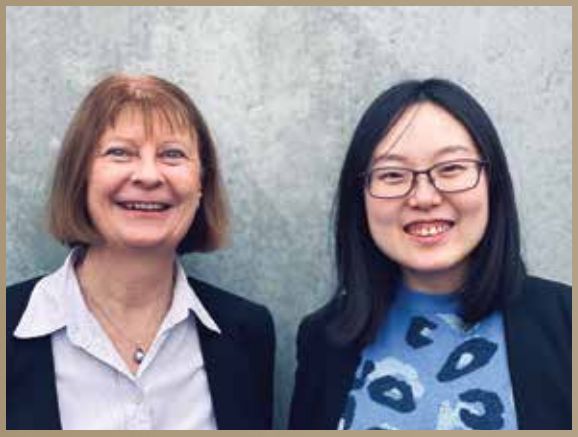
Highlights

The library has set up Cabrini authors in real time through syndicated feeds, to highlight publications originating from Cabrini-based researchers. Any new studies can be viewed through the library's main page or Research Skills Libguide.

Guides to assist staff to learn and develop their own expertise in information searching have been developed and enhanced. The high usage of these guides demonstrates the value in developing these sort of tools to assist our staff.

The librarian and the Clinical Governance Department have developed written protocols for reviewing internal clinical guidelines. This will streamline the review process with the upcoming hospital accreditation in February 2022.

Nurses and accredited Cabrini specialists were the two highest users of the library resources in 2020-21. The resource UpToDate is valued by our clinicians, with over 12,780 topic views in the last 12 months alone.



Leesa Horrigan (left) and Donna Li coordinate undergraduate and postgraduate education.

The Cabrini Q & A education program is a platform to discuss challenges, innovations and improvements relating to governance, safety, quality and risk management.

Emily Bove, Clinical Trial Study Coordinator, Oncology Research

03 Infrastructure

CABRINI RESEARCH TEAM

Professor Gary Richardson OAM, Group Director, Cabrini Research, Director, Szalmuk Family Department of Medical Oncology, Director, Oncology Clinics Victoria, Professor of Medicine, Monash University
Anne Spence, Director of Infrastructure
Dr Emma Baker, Director of Research
Jacky Fernandez, Coordinator Infrastructure
Leesa Horrigan Coordinator Engagement and Undergraduate Education
Donna Li, Coordinator Postgraduate Education
Bianca Noble, Coordinator Scholarships, Grants and Communications
Luka Keighley, Cabrini Research Receptionist and Clinical Trials Assistant
Associate Professor Wei Wang, Biostatistician
Di Horrigan, Librarian

CABRINI RESEARCH HEALTH DATA MANAGEMENT

Dr David Rankin, Director Clinical Governance and Informatics

Sharon Guo
Matthew Horrigan
Dr Stefanie Elbracht-Leong
Justin Lang
Karen Oliva
Ashley Fletcher
Vibhasha Chand
Melissa Vereker
Mr Gilbert Shardey

Clinical Database Registries

BREAST CANCER:
DATA COLLECTED FROM BREAST CANCER PATIENTS RECEIVING TREATMENT AT CABRINI

1950

COLORECTAL:
2020-21 DATA CAPTURED ON PATIENTS FROM MONASH AFFILIATED HOSPITALS

5600

ARAD:
PATIENTS WITH SURVEYS IN DATABASE

5820

PROSTATE:
CURRENT ESTIMATED POPULATION COVERAGE

72%

Without some form of clinical audit, it is difficult to know if healthcare is being delivered effectively and even more difficult to demonstrate to others. The purpose of clinical database registries is to improve the safety and/or quality of healthcare provided to patients by collecting key clinical information from individual healthcare encounters. This enables risk-adjusted outcomes to be used in evidence-based quality improvement. Cabrini leads the development and application of a number of high quality clinical database registries. A number of new databases and registries were initiated in 2021.

The Cabrini Upper Gastrointestinal Cancer Registry (CAPSTONE)

DATABASE MANAGER SHARON GUO,
LEAD RESEARCHER DR SHEHARA MENDIS ▲

Upper Gastrointestinal (GI) cancers are those arising from the oesophagus, stomach, pancreas, liver, biliary tract and small bowel. One-year survival rates are less than 50 per cent in upper GI cancers and a mere 25 per cent in pancreatic cancer. At five years, survival rates drop to less than 25 per cent for all upper GI cancers.

Patients with upper gastrointestinal tract cancer generally require extensive diagnostic work-up prior to formulation of a management plan. Treatment may include systemic therapy (such as chemotherapy), radiotherapy or surgery, or a combination of these, depending on the type and extent of cancer. Patient, tumour and treatment factors impact upon how well the cancer can be cured or controlled.

CAPSTONE is designed to help researchers and the doctors who treat these cancers understand more about patients diagnosed with upper GI cancers – how they are diagnosed, what treatments they have, how well they do with these treatments, and ultimately use this information to improve care of these patients in the future.

We are delighted to welcome Database Manager Sharon Guo to the team, who joined us at the end of 2020 and brings with her a wealth of knowledge in the development of online databases.

Generous bequests from the late Veronica Choo Neo Png and Elaine Louise Benger have helped Cabrini Research pave the way in upper GI cancers by establishing the CAPSTONE registry. Veronica and Elaine's legacies will make an important difference in how we help others.

Cabrini Gynaecological Oncology Registry

DATABASE MANAGER MATTHEW HORRIGAN, ▲
LEAD RESEARCHER PROFESSOR GARY RICHARDSON OAM

In Australia, it is estimated that there will have been 6652 newly diagnosed cases and 2096 deaths from gynaecological cancer in 2020. In total, 9.4 per cent of all female deaths from cancer will be attributable to gynaecological cancers.

The Cabrini Gynaecological Oncology Registry (CGOR) is a clinical quality data registry that is managed by Cabrini Research and reports a data subset to the National Gynae-Oncology Registry (NGOR). The objective of the database is to monitor and improve the quality of care that patients diagnosed with gynaecological cancers receive. The registry collects information about diagnosis, treatment and outcomes of women with gynaecological cancers. The process of improving healthcare systems by providing the hospital with the quality of care data takes time. CGOR is expected to benefit people diagnosed with these cancers in the future. The long-term aim for the registry is to help facilitate national and international benchmarking against agreed best practice. The collection and analysis of data will hopefully allow changes in practice that will improve key patient outcomes including overall survival, disease-free survival and quality-of-life.

A feature of this year has been working to set up the project so that it is ready to be launched. The standout highlight for the year will be officially launching the registry in the coming months. Eventually, the information collected will be used by the registry to generate reports for the hospital, publications, presentations and future research projects that require registry data.

The establishment of the CGOR was made possible by a generous bequest from the late Paula Reinders. Paula's legacy will ensure more needed research is conducted into gynaecological cancers.

Lung Cancer Database

DATABASE MANAGER DR STEFANIE ELBRACHT-LEONG, ▲ LEAD RESEARCHER PROFESSOR GARY RICHARDSON

Lung cancer is the fifth most commonly diagnosed cancer in Australia, yet it consistently remains the leading cause of cancer related death[1]. Although incidence and mortality rates have improved over the past four decades, the five-year survival rate for lung cancer patient currently remains one of the lowest survival rates of any cancer in Australia at just 18 per cent averaged across all diagnosis stages[2]; and only 3.2 per cent of patients diagnosed with stage IV lung cancer will survive five years after diagnoses[1].

In order to achieve improvements in outcomes for patients living with lung cancer and alleviate the burden of this disease, more research is required. Real world data derived from population-based databases and clinical registries is increasingly recognised as an important complement to clinical trials[3]. Databases and registries are used to perform cohort studies and address clinical questions such as the efficacy of treatment, variations in clinical decision-making across treatment settings and influences on patient outcomes. When undertaken by investigators with clinical expertise and a thorough understanding of databases advantages and limitations, these studies can significantly enhance quantitative research regarding lung cancer treatment.

In order to expand the existing repertoire of cancer related databases at Cabrini, Dr Stefanie Elbracht-Leong was appointed as the lung cancer data manager at the beginning of 2021. The database is currently being developed in REDCap and will be used to capture clinical data alongside the patients' experiences collected from patient-reported outcomes measures (PROMS) collected from diagnosis, treatment and follow-up.

Patient data collected will include but is not limited to demographics, histopathology and genomic analysis, stage of disease, exposure history, treatments and survival. Data will be obtained from prospective patients diagnosed with lung cancer being treated at both Cabrini Malvern and Brighton sites. Data will be extracted from their treating physician, medical records, clinical systems (PAS and CHARM), multi-disciplinary team meetings and hospital coded data that applies financial costs to diseases, health related problems and procedures performed in hospital (ICD10 coded extracts).

The database will be used for internal audits, generating reports to feedback to treating physicians and multi-disciplinary team meetings. De-identified patient data will also be used by researchers to address important clinical questions. Overall the main aim for establishing the Cabrini lung cancer registry is to capture all lung cancer patients' clinical data and to monitor health outcomes which will lead to improved quality of care of patients treated at Cabrini.

Dr Elbracht-Leong is also working collaboratively with the Victorian Lung Cancer Registry (VLCR) and the newly established Investigation of Health outcomes in Australian Lung cancEr (INHALE) registry. The Cabrini database is designed to facilitate semi-automatic transfer of clinical data for inclusion into both registries. Both registries provide complementary population-based information on the patterns of care for people diagnosed with lung cancer and assesses whether there is variation in health-related quality of life and survival following diagnosis of lung cancer in Victoria and across public and private hospitals[4].

Generous donations from Freda Castan have enabled the launch of the lung cancer database. Freda's commitment will lead to improved quality of care of patients treated at Cabrini and support new research.

[1] Australian Institute of Health and Welfare 2019. Cancer in Australia 2019. Cancer series no.119. Cat. no. CAN 123. Canberra: AIHW. https://www.aihw.gov.au/reports/cancer/cancer-data-in-australia

[2] Noone, A., et al., SEER Cancer Statistics Review, 1975-2015, National Cancer Institute. Bethesda, MD, https://seer.cancer.gov/csr/1975_2015/, based on November 2017 SEER data submission, posted to the SEER web site, April 2018.

[3] Booth, C.M., S. Karim, and W.J. Mackillop, Real-world data: towards achieving the achievable in cancer care. Nat Rev Clin Oncol, 2019. 16(5): p. 312-325.

[4] Victorian lung cancer Registry https://vlcr.org.au/

Prostate Cancer Outcomes Registry – Victoria

**DATABASE MANAGER JUSTIN LANG,
LEAD RESEARCHER PROFESSOR MARK FRYDENBERG ▲**

According to the World Health Organisation, Australia and New Zealand have one of the highest rates of prostate cancer. Fortunately, the improvement in screening and treatment is contributing to better survival rates. An important part of helping more men survive is enabling best-practice treatment and improvements in quality of life. The Prostate Cancer Outcomes Registry – Australia and New Zealand (PCOR-ANZ) database is building a population-based prostate cancer clinical registry to improve the quality of care provided to men diagnosed with prostate cancer. PCOR-ANZ aims to build understanding of the disease burden of prostate cancer, and aid the implementation of evidence-based support services.

The registry collects treatment data as well as surveying patients' quality of life before and after treatment. By reporting on these factors, the goal is to reduce the negative effects of urinary, bowel and sexual function and increase general physical health and mental wellbeing. The reported quality indicator reports to clinicians provide a cross-sectional view of clinical and demographic aspects of prostate cancer and patterns of care, which helps understand the uptake of evidence-based practice. By contribution to a robust dataset, patient data across many institutions assists in the design of clinical trials and identification of questions for study. Overall, clinicians and institutions can be provided with mortality and morbidity data associated with various risk and treatment groups, both for their own patients and the wider cohort of men with prostate cancer. PCOR-ANZ seeks to deliver data that is fully representative of prostate cancer practice and outcomes across Australia and New Zealand in the near future.

- 3832 patients registered a prostate cancer diagnosis through Cabrini affiliated clinicians and recorded into PCOR-Vic for screening and collection
- The 2020 PCOR-ANZ annual report published the status of the database across Australia and New Zealand:
  - 39,953 patients notified to PCOR-ANZ 2015-2018
  - 72% current estimated population coverage, with the aim of achieving 90%
  - Enrolled 244 clinical sites and 354 clinicians
  - 583 bi-national quality indicator reports delivered to healthcare providers
- Cabrini patients were part of the dataset that showed for the first time that the majority of prostate cancer biopsy diagnoses in the ANZ registry were by the transperineal approach.
- Further analyses can be found at https://prostatecancerregistry.org/publications/annual-reports

Cabrini Monash Colorectal Neoplasia Database (CMCND)

DATABASE MANAGER KAREN OLIVA, ▲
LEAD RESEARCHER PROFESSOR PAUL MCMURRICK

The Cabrini Monash Colorectal Neoplasia Database (CMCND), funded by the Cabrini Monash University Department of Surgery, commenced in 2010 and was spearheaded by surgeons committed to excellence in the prevention, diagnosis and treatment of patients with colorectal cancer. The database continues to grow as an essential tool allowing surgeons to benchmark their performance amongst their peers by capturing data on patients with either bowel cancer or benign bowel neoplasia surgically treated at Cabrini Health and other Monash affiliated hospitals including The Alfred, Peninsula Health and Monash Partners Medical Centre, Dandenong. In 2013, the Colorectal Surgical Society of Australia and New Zealand (CSSANZ) developed the Bi-National Colorectal Cancer Audit (BCCA), a minimally scaled duplicate version with participation from over 435 registered contributors across Australia and New Zealand contributing data on over 46,000 patients.

Bowel cancer is the second most common cause of cancer death in Australia. The database revealed only 14 per cent of patients present as a consequence of bowel cancer screening. Screening detects bowel cancer when it is at an early stage in people with no symptoms. This is when treatment is more likely to be effective. Screening can also find polyps. These are abnormal clumps of cells in the bowel. Polyps are not cancers, but may develop into cancers over time. Polyps can be easily removed, which reduces the risk of bowel cancer developing. In Australia, the National Bowel Cancer Screening program (NBCSP) invites all Australians aged 50-74 to complete screening biannually however our data indicates that 10 per cent of all patients diagnosed with bowel cancer are aged under 50 with seven per cent in the 40-49 age group, currently not captured by NBCSP. In May 2021, the US Preventive Services Task Force (USPSTF), recommended screening start at age 45. Guidelines in Australia today state that GPs can offer a Faecal Occult Blood Test (FOBT) every two years to people aged 45-49 who request it, thereby supporting the USPSTF recommendation which is very encouraging moving forward. We also know that 40 per cent of people diagnosed with cancer in Australia will be of working age (25–64 years). Our data indicates 35 per cent of patients diagnosed with bowel cancer are in that working age group and, depending on type of treatment received, may have a significant impact on work ability. By looking at what is being done now, the audit can suggest changes to improve care for people with bowel cancer in the future.

The database is housed and managed in an ISO 27001 certified environment and access to information is subject to strict protocols and procedures to ensure that privacy, confidentiality and ethical principles are maintained at all times. Data is analysed for data completeness based on 29 key elements and we are pleased to report that we consistently achieve almost 100 per cent capture ensuring integrity of data to complement translational research projects including:

- Tissue microarray (TMA) program – TMAs allow multiple sources of tissue to be analysed simultaneously and allow for the rapid identification of prognostic and predictive biomarkers resulting in improved patient management.
- Organoid program – Organoids are miniature replicas of both cancer and normal tissue, grown in the laboratory, providing scientists with model systems to assist researchers to quickly identify and optimise targeted anticancer therapies.
- Human tissue-slice assay program – A model for studying the development of colorectal cancer as well as providing a novel platform for testing new immunotherapy drugs on thin slices of tumour tissue in culture.

Launch of the patient-reported outcome measures (PROMs) program

There are many challenges we face such as raising screening rates, defining optimal care pathways and addressing many clinical research questions. We strongly believe the patient voice and bowel cancer experience truly matters and we are interested in gathering information from as many patients as possible about their quality of life before and after treatment. To this end, we launched the patient-reported uutcome measures (PROMs) program at Cabrini and The Alfred hospitals in July 2021. The program will allow patients to inform clinicians seamlessly and securely, in real-time, of the symptomatic and functional outcomes they are experiencing. With what we learn, we're hoping more patients will be able to get back to doing the things they love, with the people they care about most.


Australian Rheumatology Association Database (ARAD)

PROJECT MANAGER ASHLEY FLETCHER, ▲
DATABASE MANAGER VIBHASHA CHAND, ▲
LEAD RESEARCHER PROFESSOR RACHELLE BUCHBINDER AO

The Australian Rheumatology Association Database (ARAD) is a high-quality, national registry established in 2003. It includes over 6000 participants with inflammatory arthritis on biologic disease modifying antirheumatic drugs (bDMARDs) and other therapies. ARAD has 6-to-12 monthly questionnaires, data linkage to state and national data sets (MBS, PBS, cancer, death), over 30,000 person years of follow up and provides patient outcome reports to participating rheumatologists. ARAD supports the provision of better care and improved outcomes for patients being treated for rheumatoid arthritis, juvenile idiopathic arthritis, ankylosing spondylitis and psoriatic arthritis.

Over 1000 participants enrolled in the patient experience of COVID-19 project; a collaboration between ARAD and COVID-19 Global Rheumatology Alliance. Looking at direct and indirect impacts of the first COVID-19 wave, it found a low level of difficulty and high confidence accessing required community health services. Also rapid uptake of telehealth and telephone reviews meant low level of difficulty accessing their GP and rheumatologist both remotely and in metropolitan areas.

Current analyses include socioeconomic factors associated with opioid and glucocorticoid use, serious infections and self-reported medication validity using linked PBS data and biologic treatment pathways (rheumatoid arthritis, ankylosing spondylitis, psoriatic arthritis) validated with linked PBS data.

ARAD is being upgraded to the Australian Arthritis and Autoimmune Biobank Collaborative (A3BC) to add biobanking capabilities and an expanded scope of data capture through the rollout of the A3BC-ARAD biobank-registry network. Recruitment is currently targeted towards patients with rheumatoid arthritis, ankylosing spondylitis, psoriatic arthritis, juvenile idiopathic arthritis, vasculitis/GCA and gout.

Cabrini Breast Cancer Database

DATABASE MANAGER MELISSA VEREKER, ▲
LEAD RESEARCHER PROFESSOR GARY RICHARDSON OAM

Breast cancer is the most common cancer and the second leading cause of cancer-related death in Australian women. One in seven Australian women will be diagnosed with breast cancer in their lifetime. The rate of mortality is decreasing due to earlier detection by screening mammography and advances in treatment.

The purpose of the Cabrini Breast Cancer Database is to improve the safety and quality of cancer treatment and outcomes for patients diagnosed with early and locally advanced breast cancer at Cabrini. The database was established in November 2016 and data has been collected for 1950 patients at Cabrini. The database records detailed information about diagnosis, tumour characteristics, stage, treatment and outcomes of patients with breast cancer, which allows health professionals to monitor standards of care at Cabrini and benchmark against national and international treatment standards.

Monitoring and measuring safety and patient care is an essential part of healthcare delivery. At the Cabrini breast cancer service, routine data collection is integrated with clinical practice to support the management of multidisciplinary team meetings, document patient treatment summaries and care plans, and drive quality activities and research. Data is captured throughout the patient's journey, from diagnosis to follow-up care. The data is used to measure quality of cancer care, compliance with best practice guidelines, identify areas for service improvement, and ensure patients receive safe and effective treatment. The data will help improve the management, treatment and outcomes of future breast cancer patients, identify patients who may benefit from new treatments or clinical trials, and evaluate long-term effects and outcomes for treatment that was provided many years ago.

The Breast Cancer Database has been specifically designed to capture details about the complexity and variation in breast cancer tumours including hormone-receptor expression, as well as core biopsy, primary, and metastatic tumour information. The database also collects vital outcomes information including treatment modification, response to therapy, toxicity, disease progression, recurrence and cancer status at death.

Researchers and clinicians can request de-identified data from the Breast Cancer Database for research and audit purposes. The information stored on the database is confidential. All research projects must be approved by a research ethics committee.

Data from the Breast Cancer Database has been used for clinical and translational research projects including:

- Evaluation of FGFR targeting in breast cancer through interrogation of patient-derived models. Chew NJ, Lim Kam Sian TC, Nguyen EV, Shin S, 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, Breast Cancer Research. Final draft pending.
- Comparison of characteristics and treatment for women with screen-detected and non-screen-detected symptomatic breast cancer. Orlowski C, Keighley L,Vereker M, Richardson G.
- The use of neoadjuvant systemic therapy in early breast cancer as a guide to adjuvant treatment choices: a single institution review. McKie J, Antill Y, White M, Gregory P, Morgan J, Taylor K, David S, Vereker M. Medical Student Scholarship.
- Depression and other psychological factors affecting work ability and the return to work among breast cancer survivors in Australia. Kim S, Kissane DW, Richardson G, Senior J, Morgan J, Gregory P, Birks S, Ooi C, Lipton L, Antill Y, Vereker M, Michael N, Bobevski I. (2021) Psychooncology. doi:10.1002/pon.5802.
- Modelling human breast cancer disease using an experimental in-vitro organoid culture system. Richardson G, Lang T, Gregory P.
- Impact of multidisciplinary team meetings on the management of patients with breast cancer at Cabrini Hospital Melbourne. Orlowski C, Lai J, Antill Y, Richardson G, Vereker M, David S.
- ASCO quality oncology initiative program, breast cancer/gynaecological cancer. Orlowski C, Chow JA, Richardson G.

Dr Stefanie Elbracht-Leong

DATA MANAGER, LUNG CANCER REGISTRY

Dr Stefanie Elbracht-Leong studied physics in her home country, Germany, at the Karlsruhe University. Stefanie was awarded a Master's degree working on A Toroidal LCH ApparatuS (ATLAS) and the Compact Muon Solenoid (CMS) experiments at the Large Hadron Collider (LHC) in Switzerland. The research component of her work was performed in collaboration with the Experimental Particle Physics team at the University of Melbourne. At the completion of her Masters, she moved to Australia and completed a PhD at the University of Melbourne. The focus of her thesis was the development and improvement of a new next generation state of-the-art X-ray imaging detector. Stefanie's studies were done in collaboration with the Paul-Scherrer Institute in Villigen, Switzerland. During her time as a PhD student, Stefanie discovered her interest for large datasets and the research that can be performed thanks to complete, accurate and findable datasets.

In her first postdoctoral role, Stefanie joined Australian Genomics, a National Health and Medical Research Council (NHMRC) funded project on genomics research in rare diseases and cancers administered by the Murdoch Children's Research Institute (MCRI). Stefanie's role at MCRI was the data coordinator and governance officer. As part of her responsibilities she oversaw the implementation and compliance of data governance policies related to the 18 flagship studies. Originally starting in data management on her own, her increased duties and role led to her taking on leadership of a team of data officers to cope with the increasing demands and workflow. This role allowed her to gain knowledge on genomics research and further develop her data governance literacy, while using her extensive data management skills.

At the start of 2021, Stefanie joined Cabrini Research as the data manager for the lung cancer registry. Thanks to this role, she hopes to be able to balance an interesting and growing career in data management and health informatics with the demands of a young family. Using the skills she has developed during her research career, she aims to build a comprehensive lung cancer registry that will help improve the quality of care and outcomes for patients treated at Cabrini, as well as help improve the current challenges of lung cancer management and research on a wider scale.

The database is currently being developed in REDCap and will be used to capture clinical data and patient experience data through patient-reported outcomes measures (PROMs), from diagnosis, during treatment and through to follow-up. Patient data collected will include but is not limited to demographics, histopathology and genomic analysis, stage of disease, exposure history, treatments, and survival. Data will be obtained from prospective patients diagnosed with lung cancer being treated at both Cabrini Malvern and Brighton sites. Data will be extracted from their treating physician rooms, medical records, clinical systems (PAS and CHARM), multi-disciplinary team meetings, and hospital coded data that applies financial costs to diseases, health related problems and procedures performed (ICD10 coded extracts).

Stefanie is also working collaboratively with the Victorian Lung Cancer Registry (VLCR) and the newly established Investigation of Health outcomes in Australian Lung cancEr (INHALE) registry.

At the core of Stefanie's work ethic and beliefs, is a drive to continuously learn and use this ever growing knowledge to advance medical informatics and ultimately improve the quality of care of patients suffering the burden of cancers or rare diseases. Efficient, thorough and timely collection of high quality real world data and processes as well as multi-disciplinary collaboration are crucial to the improvement of patients healthcare. Stefanie is passionate about contributing back to the community with her work and is very much looking forward to contributing to the work and future of Cabrini Research.

Using the skills she has developed during her research career, Stefanie aims to build a comprehensive lung cancer registry that will help improve the quality of care and outcomes for patients treated at Cabrini...

Multidisciplinary Team Meetings (MDM) – providing best cancer management for our patients

Cabrini is the largest private provider of cancer care in Australia. At Cabrini, MDMs play a vital role in treatment planning and managing cancer effectively. A diverse, highly-skilled and dedicated team of healthcare professionals including medical oncologists, surgeons, radiation oncologists, respiratory physicians, radiologists, pathologists, physiotherapists, nurses and counsellors come together and discuss individualised care plans for every patient in every cancer stream at Cabrini.

We provide personalised multidisciplinary care, from diagnosis to treatment, rehabilitation and recovery. Our decision-making is guided by our patients and their individual needs and preferences.
Our collaborative team approach to cancer treatment ensures continuity of care throughout the patient's cancer journey.

The benefits of multidisciplinary care include:

- Shorter time frames from diagnosis to treatment
- Improved coordination of care
- Improved treatment planning
- Improved communication and sharing of information
- Identification of patient supportive care needs and other factors which may impact treatment and care
- Recruitment for clinical trials and cancer research projects
- Clinical data captured during MDT meetings is used for clinical audit, quality improvement, service planning and research
- Educational opportunities for healthcare professionals

MDM stages

Pre MDM – As much clinical data as possible is captured to ensure the case preparation teams are well informed. Case preparation teams include radiologists, pathologists, radiation oncologists, nurses/nurse coordinators and allied health professionals.

During the MDM – A team of healthcare professionals including medical oncologists, surgeons, relevant specialty physicians, radiologists, pathologists, nurses and allied health professionals come together to review each case.

Post MDM – The agreed treatment plan is communicated to Cabrini medical records and Cabrini clinical systems. A copy of the treatment plan is also sent to the treating clinician's private rooms.

Melissa Vereker, Breast Cancer MDM Coordinator, and Cabrini Breast Cancer Database Manager.

Amanda Samarasinghe, MDM Coordinator for haematology, lung, melanoma/skin, neuro-oncology, upper gastrointestinal hepatobiliary and pancreatic cancer.

Our decision-making is guided by our patients and their individual needs and preferences. Our collaborative team approach to cancer treatment ensures continuity of care throughout the patient's cancer journey.

Cabrini MDM outcomes captures data fields such as discussion focus, investigations, performance indicators, diagnosis, staging, MDM discussion and treatment recommendations. Cabrini MDM data is a contributor to the breast cancer database, and will soon contribute to the newly established Cabrini Lung Registry and Victorian Cancer Registry.

Fully functioning MDMs during COVID-19

In the midst of the COVID-19 pandemic, Cabrini MDMs continued to function and ran very effectively on a virtual platform, making use of the latest IT technologies including video conferencing and screen share capabilities.

Cabrini very quickly adapted to this new online format. It ultimately provided greater flexibility for many clinicians to attend, increasing the rate of attendance. Cabrini will continue to facilitate the MDMs online in the future as part of clinical practice.

Kate Chandler, Oncology Research Clinical Trial Study Coordinator, with Gary, an oncology clinical trial participant.

New MDM platform for Cabrini

Queensland Oncology On-Line-Victoria (QOOL-Vic) is the only Department of Health endorsed state-wide meeting software. It was initially developed to support multidisciplinary teams in Queensland and is now actively used by many private and public hospitals in Victoria. Cabrini was one of the first metropolitan private hospitals to implement QOOL-Vic and we now run most MDMs on this platform. QOOL-Vic uses end-to-end encrypted software to ensure that patient data incoming, capturing and outgoing, is safe, ensuring the highest standards of patient data confidentiality is maintained at Cabrini.

STAFF

MEETING CHAIRPERSONS

Cabrini Lung, Melanoma, Skin and Sarcoma MDMs,
Associate Professor Ben Brady

Cabrini Haematology MDM,
Associate Professor Melita Kenealy

Cabrini Upper gastrointestinal, hepatobiliary and pancreatic MDM,
Associate Professor Val Usatoff

Cabrini Urology MDM,
Professor Mark Frydenberg

Cabrini Neuro-oncology MDM,
Dr Ron Freilich

MDM COORDINATORS

Melissa Vereker, Breast

Amy Drummond, Metastatic breast

Karen Oliva, Colorectal

Amanda Samarasinghe, Haematology, Lung, Melanoma/skin, Neuro-oncology, Upper Gastrointestinal Hepatobiliary and pancreatic

Cabrini Research Governance Office

NEW RESEARCH PROJECTS REVIEWED AND APPROVED
103

PROJECT APPLICATIONS RELATED TO NEW DRUG TRIALS
24%

PROJECT APPLICATIONS RELATED TO CANCER
38%

NEW PROJECTS RELATED TO COVID-19
11

Cabrini's Research Governance Office (CRGO) provides ethical reviews of low or negligible risk projects as well as site governance for all studies. Low or negligible risk projects are those which cause little or no discomfort to the participant. Such research activities may include anonymised surveys, short structured interviews, secondary use of non-identifiable data, audits and observational studies.

Human Research Ethics Committee (HREC) approved research is still reviewed by CRGO for its appropriateness at Cabrini, and viewed through a lens that always advocates for the patient and aligns with Cabrini's mission and Catholic values.

CRGO has operated in its current form since January 2020 after the Cabrini Human Research Ethics Committee (CHREC) closed in December 2019. Eighteen months on, the team has strengthened in confidence, ability and productivity after studying, consulting industry partners, seeking guidance from ethicists, and working with Cabrini's wide spectrum of researchers, both novice and seasoned. Growth and fine-tuning will continue, particularly in response to the National Clinical Trials Governance Framework and its implications for hospital accreditation.

Highlights

Streamlining the clinical trial site review process
A priority has been to streamline the clinical trial site review process to ensure eligible, vulnerable patients are able to access trial agents without delays.

Cabrini continues to work with Cancer Trials Australia (CTA) to ensure the CRGO and CTA's ethics submission specialists work in a complementary fashion to minimise delays in the start-up of potentially life-saving trials. A recent example includes adopting an alternate pathway for language regarding prevention of conception that is required by the sponsor but is in contravention of Catholic ethical standards. Site specific forms that duplicate HREC processes have also been eliminated including certain amendment requests and progress reports. The goal of adopting such measures will not only expedite site activation but also help Cabrini move closer to its clinical trial targets. We extend our best wishes to CTA Ethics Submission Specialist Dr Luz Yévenes who commenced maternity leave and welcome Tilly Davies and Dr Rosie Hyslop in her place. Their transition into their new roles has been seamless, and we look forward to collaborating further to activate new trials in 2021-22.

CRGO meetings
Developing a comprehensive but efficient format for the monthly Cabrini Research Governance Committee meetings has been a highlight this year. The Committee convenes monthly to assess and review the governance aspects of higher risk studies, review serious adverse events, as well as consider research projects approved 'out-of-session', progress reports, COVID-19 studies and other business related to compliance in research.

We are grateful to the Committee for their feedback to assist us in refining the sizeable agenda, and for their invaluable insights and expertise each month. The Committee had the pleasure of welcoming Medical Administration Registrar Dr Ajai Verma to its membership this year, and we thank Dr Delia Wong for her contributions in 2020.

Handbook
The CRGO handbook has been updated regularly during the last 12 months, demonstrating that our processes are compliant but agile and adaptive to the evolving research environment. The HREC Track database is continually updated with new features and functions, and will play an important role in supporting the implementation of the Clinical Trials Governance Framework at Cabrini.

Mentorship
A vast number of students, both undergraduate and postgraduate, conduct research at Cabrini under the supervision of clinician researchers. These students – from medicine, allied health, pharmacy, data science, nursing and business – have been mentored by CRGO to undertake the ethics application process in order for the supervisors to concentrate on overseeing protocol writing, data collection, analysis and write-up.

Studies coming full circle
The Cabrini Research Sessions have been a fantastic part of the research calendar. It has been gratifying to hear presentations about studies we reviewed in their infancy coming full circle, with outcomes showcased during these forums and via publication acceptance. Many of these have included studies by the students and novice researchers whom we guided through the ethics application process.

Use of Monash Partners HRECs by Cabrini
Since the closure of the CHREC in December 2019, Cabrini researchers have been able to access the shared HREC services of Monash Health and Alfred Health for review of studies greater than low risk. We are grateful for the support and guidance of Deborah Dell, Angela Henjak and their respective teams.

STAFF

Deb Macdonald, Research Governance Officer
Michele Tonkin, Research Governance Officer

Projects approved

CANCER

Project Title	Principal Investigator
Effects of structured and individualised exercise in patients with metastatic breast cancer on fatigue and quality of life [EFFECT]	**Prof Gary Richardson**
Analysis of chemokine receptor expression on the surface turnout infiltrating T regulatory lymphocytes	**Prof Gary Richardson**
A phase 2 open-label, multicenter study to evaluate efficacy and safety of ZN-c3 in adult women with recurrent or persistent uterine serous carcinoma [ZN-c3-004]	**Prof Gary Richardson**
Retrospective evaluation of barrigel as a rectal spacer in prostate cancer radiotherapy	**A/Prof Michael Chao**
The use of neoadjuvant systemic therapy in early breast cancer as a guide to adjuvant treatment choices: a single institution review	**A/Prof Yoland Antill**
Cancer patients' supportive care needs and perspective towards exercise and wellness programs, contribution towards the development of the Cabrini Oncology Exercise and Wellness Centre at Cabrini Hospital: a retrospective study	**A/Prof Melita Kenealy**
First-in-human (FIH), open-label, phase 1 dose escalation study of ADG126 in patients with advanced malignancies [ADG126-1001]	**Prof Gary Richardson**
Cabrini Gynaecological Oncology Registry [CGOR]	**Prof Gary Richardson**
Resolution Bio: Blood-based assays for genomic profiling of cancer patients – Detecting oncogenic changes and concordance with tissue-based assays	**Dr Adrian Lee**
Implementation of an electronic intervention within Patient-Reported Outcome Measures for Lung Cancer Patients at Cabrini	**Dr Tali Lang**
Pan-tumour study for long term follow-up for cancer survivors who have participated in trials investigating Nivolumab [CA209-8TT]	**Prof Ben Brady**
A phase 1, multicentre, open-label study to evaluate the safety and tolerability, pharmacokinetics, pharmacodynamics and anti-tumour activity of KF-0210 in patients with advanced solid tumours [KFCS001]	**Prof Gary Richardson**
A randomised, open-label phase 3 study of combination amivantamab and carboplatin-pemetrexed therapy, compared with carboplatin-pemetrexed, in patients with EGFR Exon 20ins mutated locally advanced or metastatic non-small cell lung cancer [61186372NSC3001] [PAPILLON]	**Prof Gary Richardson**
A phase 3, randomised study of amivantamab and lazertinib combination therapy versus osimertinib versus lazertinib as first-line treatment in patients with EGFR-mutated locally advanced or metastatic non-small cell lung cancer [MARIPOSA]	**Prof Gary Richardson**
ENHANCE: A randomised, double-blind multicenter study comparing magrolimab in combination with azacitidine versus azacitidine plus placebo in treatment-naive patients with higher risk myelodysplastic syndrome [5F9009]	**A/Prof Melita Kenealy**

INHALE: Investigation of Health outcomes in Australian Lung cancer	**Dr Ben Markman**
Patients and clinicians real world understanding of immunotherapy in cancer treatment	**Dr Matthew Loft**
A randomised, multicentre, double-blind, placebo-controlled, phase 3 study of first line Carboplatin and Paclitaxel in combination with Durvalumab, followed by maintenance durvalumab with or without Olaparib in patients with newly diagnosed advanced or recurrent endometrial cancer [DUO-E]	**Prof Gary Richardson**
A phase 1/2, open-label study to evaluate the safety, tolerability, pharmacokinetics and efficacy of D-1553 in subjects with advanced or metastatic solid tumors with KRasG12C mutation [D1553-101]	**Prof Gary Richardson**
National Dermatology Radiation Oncology Registry [NDRORI]	**Dr Ian Porter**
Development and implementation of the Cabrini Upper Gastrointestinal Cancer Registry (CAPSTONE: A registry study)	**Prof Gary Richardson**
A phase 3, multicenter, open-label, randomised study to evaluate the efficacy and safety of belantamab mafodotin in combination with pomalidomide and dexamethasone (B-Pd) versus pomalidomide plus bortezomib and dexamethasone (PVd) in participants with relapsed/refractory multiple myeloma [207499] [DREAMM 8]	**A/Prof Melita Kenealy**
The impact of the COVID-19 pandemic on early breast cancer diagnoses	**Dr Matthew Loft**
A phase 1b study of ZN-c3 in combination with chemotherapy in patients with platinum-resistant ovarian, peritoneal, or fallopian tube cancer [ZN-c3-002]	**Prof Gary Richardson**
An open label, multicentre, dose escalation/expansion, phase 1 study of IMU-201 (PD1-Vaxx), a B cell immunotherapy, in adults with non-small cell lung cancer [IMU201-101]	**Prof Gary Richardson**
Supportive care service utilisation in pancreatic and oesophagogastric cancers – a qualitative investigation	**A/Prof Jeremy Shapiro**
Relative importance of T and N stage on colorectal cancer prognosis	**A/Prof Jeremy Shapiro**
A multicentre national study of COVID-19 infection in cancer patients	**Prof Gary Richardson**
Tolerability of BRAF and MEK inhibition in BRAF-mutant metastatic melanoma in an elderly population	**Dr Victoria Rayson**
MIRASOL: A randomised, open-label, phase 3 study of mirvetuximab soravtansine vs investigator's choice of chemotherapy in platinum-resistant, advanced high-grade epithelial ovarian, primary peritoneal, or fallopian tube cancers with high folate receptor-alpha expression [IMGN853.0416]	**Prof Gary Richardson**
A phase 1, open-label, dose escalation study of ADG116 in patients with advanced/metastatic solid tumours [ADG116-1003]	**Prof Gary Richardson**
Is there a relationship between frequency of port-care maintenance and associated complications in oncology patients	**Dr Tali Lang**

A phase 1, open label, multicenter, dose escalation clinical study to evaluate the safety, tolerability, pharmacokinetics and preliminary efficacy of CN1 in patients with advanced solid tumors or B cell lymphoma [CN1-101]	**Prof Gary Richardson**
Use of TELEHEALTH in the Cabrini Family Cancer Clinic as part of the COVID-19 response	**Dr Lynne McKay**
A phase 3, randomised, double-blind study of adjuvant immunotherapy with nivolumab versus placebo after complete resection of stage IIB/C melanoma (CheckMate 76K: CHECKpoint pathway and nivoluMab clinical Trial Evaluation 76K) [CA209-76K]	**A/Prof Ben Brady**
A phase 1/2, open-label, dose-escalation trial of GEN3013 in patients with relapsed, progressive or refractory b-cell lymphoma [GCT3013-01]	**Dr Kirsten Herbert**
A phase 1, first in human, multicenter, open-label, study of GQ1001, a HER2 targeted antibody-drug conjugate administered intravenously in adult patients with HER2 – positive advanced solid tumors [GQCT001/GQ1001X2101]	**Prof Gary Richardson**
Australian & New Zealand Thyroid Cancer Registry [ANZTCR]	**Dr Simon Grodski**
GenesisCare Epithelial Neoplasia Trial using Lighter dose Extensive Field Radiotherapy [GENTLER]	**Dr Ian Porter**

SURGERY

Project Title	Principal Investigator
Defining tissue biomarkers in colorectal cancer	**Prof Paul McMurrick**
Characterising fat biology for utility in fat transfer surgery and therapeutic approaches in soft tissue injury	**Dr Ramin Shayan**
RObotic versus LAparascopic Colon – a randomised trial: An international randomised phase 2 trial comparing robotic-assisted right hemicolectomy versus laparoscopic-assisted hemicolectomy for resection of adenocarcinoma of the caecum, ascending or proximal transverse colon [RoLaCaRT-1]	**Mr Stephen Bell**
The impact of primary tumour location on survival in colorectal patients after surgical and/or chemotherapy treatment for liver metastases	**Dr Raymond Yap**
DISTINCT: Dual Mobility Versus Standard Total Hip Arthroplasty in Femoral Neck Fractures, a registry-nested, cluster randomised trial	**A/Prof Marinis Pirpiris**
The correlation of screening status of colorectal cancer patients to short and long term outcomes	**Dr Simon Wilkins**
Impact of return to theatre for post-operative abdominal pelvic collection and/or haemorrhage on long-term oncological outcomes after curative colorectal cancer surgery	**Dr Raymond Yap**
Tranexamic acid to reduce infection after gastrointestinal surgery [TRIGS]	**Mr Paul Burton**

INFORMATICS

Project Title	Principal Investigator
Cohort review of falls with major/catastrophic harm at Cabrini Health	**Dr David Rankin**
Argus uptake – barriers to the use of Argus in a private hospital setting	**Dr David Rankin**
Quantifying the cost of changes in bed allocation while an inpatient	**Dr David Rankin**
Mining administrative health records to identify patients' needs for home-based services	**Dr David Rankin**
Review of mortality reporting	**Dr David Rankin**
Review of major incidents and their recommendations	**Dr David Rankin**
Review of hospital acquired complications	**Dr David Rankin**
Using practice analytics to understand variation and support reflective practice	**Dr David Rankin**

CARDIOLOGY

Project Title	Principal Investigator
An evaluation of patient predictors for upfront cardiac pacing device for presentations of pre-syncope and syncope	**Dr Alex Voskoboinik**
Pace mapping to determine P wave morphology from common non-pulmonary vein trigger sites in atrial fibrillation following radiofrequency ablation of pulmonary vein and left atrial substrate modification: the PAPYRUS-AF study	**Prof Peter Kistler**
Preventing heart disease in women with non-traditional cardiovascular risk factors	**Dr Swati Mukherjee**
P wave morphology in focal atrial tachycardia: an updated 2020 algorithm to predict site of origin	**Prof Peter Kistler**
Prone & Supine 12 lead Electrocardiography Comparisons in Patients: the PROSECO study	**Prof Peter Kistler**
High Power Short Duration (HPSD) versus Lower Power Longer Duration (LPLD) atrial fibrillation ablation in posterior left atrium and hyperthermic effects on esophageal tissue [the Hi-Lo HEAT study]	**Prof Peter Kistler**

INFECTION CONTROL / INFECTIOUS DISEASES

Project Title	Principal Investigator
The effect of COVID-19 on healthcare associated infections	**A/Prof Philip Russo**
Coronavirus in Victorian healthcare and aged care workers (COVIC-HA) cohort study	**A/Prof Philip Russo**
An exploratory study of the experiences of cancer patients and their caregivers during the COVID-19 pandemic	**A/Prof Philip Russo**
Establishing the prevalence of healthcare associated infections in Australian hospitals [CHAINS]	**A/Prof Philip Russo**
COVID-19 Biobank	**Dr David Sheffield**
Australasian COVID-19 Trial [ASCOT]	**Dr David Sheffield**

INTENSIVE CARE

Project Title	Principal Investigator
Achieving airway management proficiency: a mixed methods study of Australasian Intensivists' perspectives	**A/Prof David Brewster**
Leadership during airway management in ICU: a video reflexivity ethnography study	**A/Prof David Brewster**
Does a bundle of care designed to reduce sound levels in an adult Intensive Care Unit reduce the rate of delirium in post-surgical patients?	**Dr Steve Philpot**
The COVID-Recovery Study	**A/Prof David Brewster**

EMERGENCY MEDICINE

Project Title	Principal Investigator
Emergency department data to assess the impact of COVID-19 restrictions	**Dr Ian Turner**
Development of customised distraction techniques for managing acute behavioural disturbance in patients aged 65 years or older in the emergency department	**Dr Gabriel Blecher**
Cabrini ED waiting room experience project	**A/Prof Keith Joe**
To determine the value and efficacy of Emergency Department post discharge telephone follow up on meeting patients' needs (qualitative study)	**Dr Ian Turner**

ALLIED HEALTH

Project Title	Principal Investigator
MyTherapy	**Dr Annemarie Lee**
Nutrition practice in critically ill adults – an observational study	**Dr Mariagrazia De Luca**
"Warble while you work" – the benefits and challenges of an online choir at Cabrini Health	**Dr Annemarie Lee**
Using supported motivational intervention (SUMIT) to improve physical activity in people with knee osteoarthritis	**Dr Jason Wallis**
Telehealth physiotherapy for people with bronchietectasis – the patients' perceptions and perspectives	**Dr Annemarie Lee**
Effectiveness of inspiratory muscle training device in patients with respiratory disorders: an exploratory survey study	**Susan Baenziger**
Living well with secondary breast cancer – the clinical outcomes and patient perceptions of a combined exercise and educational support group	**Danielle Feil**

UROLOGY

Project Title	Principal Investigator
A service evaluation exploring whether a uniformed pattern of care in the form of a clinical Robotic Assisted Radical Prostatectomy (RARP) pathway streamlines patient management	**Prof Mark Frydenberg**
What is the fate of patients who have negative PET PSMA and Multiparametric MRI pelvis for rising PSA post radical prostatectomy?	**Prof Mark Frydenberg**
Is multiparametric MRI of the pelvis useful in addition to PET PSMA scan in the investigation of PSA recurrence post radical prostatectomy?	**Prof Mark Frydenberg**

CLINICAL EPIDEMIOLOGY/RHEUMATOLOGY

Project Title	Principal Investigator
Consumer understanding of the benefits and harms of knee arthroscopy for degenerative knee disease: an online survey	**A/Prof Denise O'Connor**
DECIDE study – Evaluating information provision for people with knee osteoarthritis considering surgery: a randomised controlled trial	**A/Prof Denise O'Connor**

GYNAECOLOGY

Project Title	Principal Investigator
Palmitoylethanolamide and polydatin effect on pain and dysmenorrhea in women scheduled for laparoscopic treatment of possible endometriosis: a double blind randomised controlled trial	**Dr Michal Amir**
Australasian Pelvic Floor Procedure Registry [APFPR]	**A/Prof Anna Rosamilia**

PAEDIATRICS

Project Title	Principal Investigator
Generation Victoria Cohort 2020s: A longitudinal birth-cohort of babies born in Victoria between 2020 and 2022, and their parents [GenV]	**Dr Danielle Wilkins**
ACTOR: Australian Childhood Travel Outcomes Registry	**Prof Jim Buttery**

PHARMACY

Project Title	Principal Investigator
Compatibility of medication admixtures in continuous subcutaneous infusions: A review of current practice	**Robert Wojnar**
Perioperative diabetes medication management in patients undergoing coronary angiogram, PCI, TAVI and CABG procedures	**Robert Wojnar**

PALLIATIVE CARE

Project Title	Principal Investigator
An exploratory randomised controlled open-label study of methadone rotation versus other opioid rotation for the treatment of refractory cancer induced bone pain	**Dr Merlina Sulistio**
The Edmonton Classification System for cancer pain in patients with bone metastasis: A descriptive cohort study	**Dr Merlina Sulistio**
Feasibility and efficacy of exercise in advanced cancer patients with cachexia [ACE Trial: The Advanced Cancer & Exercise Trial]	**A/Prof Natasha Michael**
Routine clinical assessment of psychosocial and existential symptoms in palliative care: a national quality improvement project through education and supervision [PeSAS]	**A/Prof Natasha Michael**

OTHER

Project Title	Principal Investigator
Health survey of refugees and asylum seeker released from long-term detention	**Prof Suresh Sundram**
The living lab: designing the future of aged care	**Sharni Clark**
Being Your Best: an innovative, codesigned approach to frailty and care transitions from hospital to home, in people aged 65 years or more	**A/Prof Michael Rose**
Building capacity to optimise pressure injury prevention and surveillance across Monash Partners Healthcare services	**Leanne Gleghorn**
A phase 3, multicentre randomised double-blind placebo- and active-controlled treat-through study to evaluate the efficacy and safety of Mirikizumab in patients with moderately to severely active Crohn's Disease (VIVID-1) [16T-MC-AMAM]	**Dr Edward Shelton**
Dupuytren's disease Evaluation of Preventative or Adjuvant Radiation Therapy: DEPART	**Dr David Blakey**

Monash-Cabrini Department of Clinical Epidemiology

Grants

NHMRC Program Grant. 'Musculoskeletal pain and disability: improving outcomes through conservation interventions'. ID 1091302. (2016-2020), $8,268,140 Hodges P, Bennel K, et al. **Buchbinder R** (AI).

NHMRC Partnership Grant. 'Patient-centred eHealth approach to improving outcomes for gout sufferers'. (2016-2020), $660,656 Day R, et al. **Buchbinder R** (AI).

NHMRC Program Grant. 'Using healthcare wisely: reducing inappropriate use of tests and treatments'. APP1113532. (2017-2021), $9,578,895 Glasziou P, **Buchbinder R**, Maher C, McCaffery K.

'NHMRC Partnership Centre in Health System Sustainability'. (2017-2022), $10,700,000 (NHMRC $5,250,000; Partners: Bupa Health Foundation, NSW Health, Telstra and the University of Notre Dame Australia) Braithwaite J, Ward RL, Anderson T, Teede H, Wells L, Gray LC, Yeend T, Coiera E, Westbrook J, Glasziou P, Scott A, Karnon JD, **Buchbinder R**.

NHMRC Project Grant. 'SUcceSS: SUrgery for Spinal Stenosis – a randomised placebo-controlled trial'. APP1125140. (2017-2021), $2,300,000 Ferreira M, Harris I, Davis G, Latimer J, Beard D, Li Q, Mobbs R. AIs: **Buchbinder R**, [formerly CIB but changed to AI in view of successful Program Grant].

NHMRC Centre of Research Excellence. 'ANZMUSC – Australia and New Zealand Musculoskeletal Clinical Trials Network'. APP1134856. (2018-2022), $2,497,653 **Buchbinder R**, Maher C, March L, Day R, Hinman R, Harris I, Ferreira M, Glasziou P, Green S, Billot L.

NHMRC Medical Research Future Fund (MRFF) Research Grant. 'CRISTAL: Cluster randomised trial of aspirin versus Low molecular weight heparin for venous thromboembolism prophylaxis in joint replacement surgery, a registry-nested study'. APP1152285. (2018-2022), $910,700 Harris I, Graves S, **Buchbinder R**, Naylor J, Pratt N, de Steiger R, Chong B, Ackerman I, Harris A.

Academy of Finland. 'Finnish Imaging of Degenerative Shoulder Study (FIMAGE): A study on the prevalence of degenerative imaging changes of the shoulder and their relevance to clinical symptoms in the general population'. (2018-2022), $450,000 Taimela S, et al.

NHMRC Project Grant. 'Trial of glucocorticoids in acute sciatica'. APP1157835. (2019-2022), $1,142,038 Lin CWC, McLachlan A, Latimer J, Abdel Shaheed C, Li Q. **Buchbinder R** (AI) [formerly CI but changed to AI in view of successful Program Grant].

Australian Government Department of Health. 'Value in Prescribing Program: Biological disease modifying anti-rheumatic drugs (bDMARDs): Value-based prescribing of bDMARDs: a coordinated national program'. (2019-2022), $8,411,403 Partnership between: NPS MedicineWise (Dartnell J, London J, Heaney A, Hosking K, Yoo J, Elliott J, Granger R, Blogg S, Antonio G), ARA (Hill C, Barrett C, Morabani M, Kubler P, Day R, Clancy M, **Buchbinder R** [also representing ANZMUSC and Cochrane Musculoskeletal]), ANZMUSC (**Whittle S**, **O'Connor D**), Cochrane Musculoskeletal (**Johnston R**), Arthritis Australia (Mills A, Marine F), Quality Use of Medicines and Pharmacy Research Centre (Rowett D, Roughead L, Ward M, Wiese M), Pharmaceutical Society of Australia (Jackson S, Freeman C, McMaugh J, Ridd J), Society of Hospital Pharmacists of Australia (Michaels K, Jerry Yik J, Hayward K), Council of Australian Therapeutic Advisory Groups (Etherton-Beer C, Donnelly J, Bennett S).

Therapeutic Guidelines LTD (TGL)/RACGP Foundation Research Grant (TGL -03). 'Use of osteoarthritis guidelines in general practice: An analysis of work-as-done using the functional resonance analysis method'. (2019-2021), $19,968 Stocks N, **Whittle S**, Clay-Williams, **Buchbinder R**.

'NHMRC Low Back Pain Centre for Research Excellence (CRE)'. APP1171459. (2020-2024), $2,499,189 Maher C, **Buchbinder R**, Hancock M, O'Sullivan P, McAuley J, Blyth F, Jorm L, Collie A, McCaffery K, Hayes A (AI **O'Connor D**).

Arthritis Australia Grant-in-Aid. 'The development of a patient decision aid to reduce subacromial decompression'. (2020), $15,000 Zadro J, Maher C, **Buchbinder R**, Harris I.

NHMRC. The Cochrane Collaboration Round 8 Funding Program. 'Cochrane Musculoskeletal Review Group, Australian Editorial base'. (2020-2023), $384,204 **Buchbinder R**, **Johnston R**, **O'Connor D**, Winzenberg T, Maher C, **Whittle S**.

Australian Government Department of Health. 'Public Health and Chronic Disease Program Arthritis – Health Professional Education and Training'. (2020-2023), $2,018,464 Partnership between: Arthritis Australia, University of Sydney, University of Melbourne, Arthritis and Osteoporosis Australia in partnership with Curtin University, Monash University on behalf of ANZMUSC and Cochrane Musculoskeletal, Australian Rheumatology Association.

National COVID-19 Clinical Evidence Taskforce. (2020-2025), Equity Trustees – Walter Cottman Endowment Fund: $100,000 (25/3/20 to 31/12/20); Ian Potter Foundation: $2,500,000 (1/4/2020 to 31/12/2025); MRFF: $1,500,000 (1/4/2020 to 31/3/2022) Elliott J, Green S, Zoungas S, **Buchbinder R**, Craig J, McGowan S, Tendal B, Tate R, Turner T, McDonald S, Murano M.

Cabrini Foundation. 'Evaluating a patient decision aid for people with degenerative knee disease considering arthroscopic surgery: a randomised controlled trial'. (2020-2021), $30,000 **O'Connor D**, **Buchbinder R,** Hoffmann T, McCaffery K, Maher C, Harris I, Glasziou P, Billot L, **Haas R**.

NHMRC Investigator Grant: Leadership 3. 'Better evidence more rapidly implemented to optimise health for people with musculoskeletal conditions'. APP1194483. (2022-2025), $2,914,215 **Buchbinder R**.

NHMRC Ideas Grant. 'Enabling evidence-informed policy to address Australia's opioid crisis'. APP2002193. (2021-2024), $607,538 Nielsen S, Bell S, Lalic, Russel G, AI: **Buchbinder R**.

HCF Research Foundation. 'Wiser rehabilitation following primary, elective total hip (THR) and knee (TKR) replacement surgery at a private hospital'. (2021), $164,595 **Wallis J**, **Buchbinder R**, **O'Connor D**, **Gearon E**, **Gorelik A**, Young K, Zayontz S, Risbey P, Naylor J, Harris I, Karnon J.

MRFF-PPHR Initiative. Efficient use of existing medicines. 'Cost-utility comparison of down-titration strategies for safer and more efficient use of biologics in adults with rheumatoid arthritis and psoriatic arthritis'. (2021-2025), $2,720,943 March L, **Buchbinder R**, Lassere M, Proudman S, Thomas R, Schofield D, Xue M, Wechalekar M, **Whittle S**.

Victorian Department of Health and Human Services (DHHS) Victorian Healthcare Recovery Initiative Grant. 'Measuring, providing regular feedback and co-designing quality improvement strategies to reduce low-value colonoscopy'. (2021-2022), $325,000 **O'Connor DA**, Hiscock H, Audehm R, Hensher M, Hutchinson A, Liew D, O'Loughlin A, Thursky K.

Swedish Research Council – Joint Programming Initiative on Antimicrobial Resistance Fund. 'The Joint Programming Initiative on Antimicrobial Resistance Network Plus (JPIAMR) audit and feedback international collaboration: Best practices for the delivery of antibiotic prescribing feedback to community clinicians using behavioural science'. (2021-2022), €200,000 (AU$325,000) Schwartz K, Lindbaek M, Ivers N on behalf of JPIAMR International Network; **O'Connor DA** (Australian CI).

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Grants

The CASS Foundation. 'Using patient-derived tumouroids to guide "watch and wait" approach in rectal cancer'. (2021), $57,000 CI **Engel R**.

Cabrini Foundation Research Grant. 'Regulation of the immune response in the colorectal cancer tumour microenvironment and its role in patient outcomes'. (2021), $30,000 CIs **Wilkins S**, Fletcher A, **Koulis C**, **McMurrick P**. AIs **Oliva K**, Mendis S, **Wang W**.

Cabrini Foundation Research Grant. 'Personalising cancer medicine part II: Expanding the organoid program to include treatment-exposed metastatic colorectal cancer'. (2021), $30,000 CIs **Engel R,** Mendis S, **McMurrick P**, Abud H.

Cabrini Foundation Research Grant. 'Personalising cancer medicine: the development of a high throughput drug screening platform using patient-derived colorectal cancer organoids'. (2020-21), $30,000 CIs **Engel R** and **McMurrick P.**

Alan, Ada and Eva Selwyn Clinical Research Grant. 'Personalised medicine for colorectal cancer patients: Utilisation of organoid technology, tissue microarrays and consensus molecular subtypes'. (2019-2020), $30,000 CIs **Koulis C**, **Engel R**, **McMurrick P**.

Cabrini Foundation Research Grant. 'Developing a new tissue-slice assay for modelling colorectal cancer tumours'. (2019-2020), $30,000 CIs **Wilkins S**, Fletcher A, Knoblich K, **McMurrick P**.

Cancer Australia. 'Translating colorectal cancer organoids into patient care'. (2018-2020), $597,557 CIs Abud H, Worthley D, Burgess A, **McMurrick P**, Firestein R, Gibbs P, Clevers H, Price T, Padbury R, Hewett P.

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Cabrini Monash University Department of Medical Oncology - Szalmuk Family Department of Medical Oncology

Grants

Freda Castan Grant for Lung Cancer Research. (2020-2022) $100,000 **Lang T, Richardson G.**

Peter Meese Memorial Oncology Nursing Research Grant. 'Is there a relationship between frequency of port-care maintenance and associated complications in oncology patients?' (2020-2021), $50,000 **Lang T,** Seletto K.

Cabrini Foundation Grant Round. 'Validation of Cabrini's new chemotherapy app'. (2019-2020), $25,000 **Richardson G**, **Lang T**, Seletto K, Hastings J.

Eirene Lucas Foundation. 'Exome sequencing of breast tumour organoids'. (2020-2021), $10,000 **Lang T.**

Cabrini Foundation Quality Improvement Grant. 'Combatting compassion fatigue and burnout of oncology nurses through wellness activities'. (2019-2021), $15,000 **Lang T,** Seletto K.

Auric Innovation grant. 'Development and implementation of an academic exercise physiology program at Cabrini'. (2020), $200,000 **Richardson G** (PI), Lee A, McMurrick P, Rankin D, Young K.

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Cabrini Monash University Department of Nursing Research

Grants

Alan Jackson Research Grant. 'The effect of COVID-19 on healthcare associated infections in a multi-campus private healthcare facility'. (2020), $49,461 **Russo P** (PI), Renton R (CI), **Wang W** (CI), Mitchell B (CI) **Kerr L** (CI).

Alan Jackson Research Grant. 'The experience of the healthcare worker during the COVID-19 response'. (2020), $47,211 **Russo P** (PI), Ilangakoon C (CI), **Kerr** L (CI).

Auric Innovation Grant (Johnstone Family, via Cabrini Foundation). 'Development of customised distraction techniques for managing acute behavioural disturbance of elderly patients in the emergency department setting to limit use of chemical and physical restraint'. (2019), $146,993 Blecher G, Kuhn L, Walker K, Flynn D, Joe K, **Russo P**, Page R, Peisah C.

NHMRC Early Career Fellowship. 'Improved detection of infections following surgery for meaningful public reporting'. (2019), $327,192 **Russo P** (PI), Cheng A, Bucknall T.
NHMRC Ideas Grant. 'A new approach to disinvestment: Application to falls prevention mobilisation alarms'. (2020), $1,100,000 CIs: Haines T, Shorr B, Botti M, Brusco N, O'Brien E, Redley B, Bowles KA. AIs: Hutchinson A, Mitchell D, Jellete J, Steen K, Boyd L, **Russo P**, Webb M, Raymond M, Hunter P.

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Cosentino CB, Mitchell BG, Brewster DJ, **Russo PL**. (2021) The utility of frailty indices in predicting the risk of healthcare associated infections: A systematic review. *Am J Infect Control*. 49(8):1078-1084. doi.org/10.1016/j.ajic.2020.12.001.

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Department of Urology

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NHMRC grant. 'Targeting lethal prostate cancer in its infancy'. ID:1185616 (2020-2022), $764,363 Risbridger G, Clouston D, **Frydenberg M**, Murphy D.

NHMRC Grant. 'Developmental events affecting male fertility and reproductive pathologies'. ID:1181516 (2020-2023), $1,430,000 Loveland K, Rajpert-De Meyts E, Schuppe H-C, Meinhardt A, Almstrup K, Jorgensen A, Guo J. AIs: **Frydenberg M**, Hedger M, Hobbs R, Tran B.

Prostate Cancer Foundation of Australia and It's A Blokes Thing Foundation through Prostate

Cancer Foundation of Australia's Research Program. 'Inherited pathogenic mutations in prostate cancer: the next generation'. ID:PIRA 1519 (2019-2022), $490,670 Taylor RA, Thorne H, **Frydenberg M**, Risbridger GP, Batra J, Schoch W.

Movember Foundation. Prostate Cancer Outcomes Registry – Australia and New Zealand (PCOR-ANZ) Quality Improvement Research Fund. 'Realtime App for PCOR-ANZ results: proof of concept and value to Urologists'. (2019 – 2022), $100,000 Stephen M, Brough S, **Frydenberg M**, Bax K, Clarke J, Frizelle F, Weston M, Evans S, Runting A, Nugara M.

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Cancer Council Victoria (CCV). 'Targeting lipid metabolism for prostate cancer therapy'. ID:APP1160217 (2019-2021), $300,000 CIs: Watt MJ, Taylor RA, Nomura D. AIs: Risbridger G, **Frydenberg M**, Ryan.

NHMRC Grant. 'BCG+MM Trial: Adding mitomycin to BCG as adjuvant intravesical therapy for high-risk, non-muscleinvasive bladder cancer: a 2-stage, randomised phase 3 trial'. ID:APP1159787 (2019 – 2023), $1,587,163 Hayne D, Stockler M, **Frydenberg M**, Martin A, Sengupta S, Patel M, Grummet J, Krieger L,m McCombie S.

NHMRC Grant. 'Can Exercise Delay Transition to Active Therapy in Men with Low Grade Prostate Cancer? A Multicentre Randomized Controlled Trial'. ID:APP1147137 (2018 – 2022), $596,083 Galvão D, **Frydenberg M**, Chambers S, Newton R, Hayne D, Taaffe D, Spry N, Hart N.

NHMRC Grant. 'Centre for Research Excellence in Prostate Cancer Survivorship (CRE-PCS)'. ID:APP1116334 (2016 – 2020), $2,498,842 AI: **Frydenberg M.**

Prostate Cancer Foundation of Australia – Movember Clinical Trial Award. 'A prospective multicentre study of the impact of Ga-68 PSMA-PET/CT imaging in the management of prostate cancer (proPSMA study)'. (2016 – 2020), $1,272,142 Hofman M (PI), Williams S, Lawrentschuk N, Francis R, Martin J, Roach P, **Frydenberg M**, Thomas P.

Publications

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Centre for Allied Health Research and Education

Grants

Clinical Research and Quality Improvement Grant. 'Living well with secondary breast cancer - the clinical outcomes and patient perceptions of a combined exercise and educational support group' (2020-2021), $15,000 **Feil D** (PI), **Jansen F**, **Tilley L, Lee AL.**

NHMRC Partnership Grant. 'My Therapy' (2020-2023), $743,438 **Brusco N** (CI), N Taylor, Morris M, Hill K, **Lee AL**, Somerville L, Lannin N.

Cabrini Foundation. 'Supported Motivational Interviewing (SUMIT) to improve physical activity for people with knee osteoarthritis'. (2020) $29,999 **Bell M** (PI), **Wallis J**, Barton C, O'Halloran P, Crossley K, Taylor N, **Lee A, Jennings S**, Gibbs A.

Cabrini Foundation. 'The relationship between cardiorespiratory parameters during physical activity following cardiac surgery'. $15,000 **Lee A** (PI), Gaudin J, Jennings S, Bergin M, Collicoat O, Armstrong B, El-ansary D.

Auric Innovation grant. 'Development and implementation of an academic exercise physiology program at Cabrini'. (2020) $200,000 Richardson G (PI), **Lee A,** McMurrick P, Rankin D, Young K.

Cabrini Foundation. 'Barriers and enablers for referrals and participation in Cabrini's new evidence-based osteoarthritis management program: Capturing referrer and patient perspectives' $30,000 **Wallis J** (PI), **Sherwood J, Brusco NK,** Barton C, Crossley K, Ackerman IN, **Young K, Jennings S.**

Cabrini Foundation. 'Is spontaneous swallowing reduced in Parkinson's compared to healthy controls?'. $20,000 **Pierce J** (CI), Vogel A, Cormick M, Lawson N.

Cabrini Foundation. 'The development and implementation of a pictorial hospital food menu'. $15,000 **Matthews C** (CI), Coletti S, Kelaart A, **Lawson N**, Dowd J.

Cabrini Foundation. 'Do post-operative sitting and activity restrictions impact on the outcome following elective lumbar micro discectomy?'. $30,000 **Risbey P** (CI).

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Bell E, Wallis JA, Crossley KM, Trivett A, Barton CJ. (2021) Patient forgoes knee replacement surgery by at least two years after appropriate nonsurgical care following cardiac rehabilitation: a case report. *Journal of Orthopaedic and Sports Physical Therapy* 1(1): 21-26.

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Wallis J, Young K, Zayontz S, Risbey P, Buchbinder R. (2021) Utilisation of inpatient rehabilitation following elective total hip or knee replacements in private hospital setting declined during the COVID-19 pandemic. *Internal Medicine Journal*. 51:446-447. doi:org/10.1111/imj.15095.

Intensive Care Research Unit

Publications

Brewster DJ, Begley JL, Marshall SD. (2020) The rise and fall of the aerosol box; and what we must learn from the adoption of untested equipment. *Emerg Med J*. 38(2):109-110. doi:10.1136/emermed-2020-210761.

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Brewster DJ, Groombrige CJ, Gatward JJ. (2021) Consensus statement: Safe Airway Society principles of airway management and tracheal intubation specific to the COVID-19 adult patient group. Reply to letter. *Med J Aust*. 214(1):46-46.e1. doi:10.5694/mja2.50889.

Brewster DJ, Nickson CP, McGloughlin S, Pilcher D, **Sarode VV**, Gatward JJ. (2021) Preparation for airway management in Australia and New Zealand ICUs during the COVID-19 pandemic. *PLoS One*. 16(5):e0251523. doi:10.1371/journal.pone.0251523.

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Szalmuk Family Psycho-oncology Research Unit

Grants

Bethlehem Griffiths Research Foundation. 'Validation of a clinical interview for demoralisation' (2019-2020), $50,000, Bobevski I, Kissane D.

Cabrini Foundation Research Grant. 'Validation of a clinical interview for demoralisation' (2019-2020), $30,000, Bobevski I, Kissane D.

Cabrini Foundation Research Grant. 'Meaning and Purpose (MaP) therapy randomised controlled trial' (2019-2022), $80,000 Kissane D, Lethborg K, Bobevski I, Michael N.

Curran Foundation, St Vincent's Sydney. 'Meaning and Purpose (MaP) therapy randomised controlled Trial' (2019-2022), $99,000 Kissane D, Lethborg K, Bobevski I, Michael N.

Commonwealth Dept of Health Palliative Care Project. 'Education and assessment for psycho-existential wellbeing in palliative care' (2020-2023), $1,062,342 Kissane D, Michael N, Lobb.

Publications

Chau R, **Kissane DW**, Davison TE. (2020) Risk factors for depression in aged care: The contribution of a meaningful life, mastery and environmental fit. *Australasian Journal on Ageing* 39: e368-e374. doi.org/10.1111/ajag.12792.

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Manne S, Kashy D, Myers-Virtue S, Zaider T, **Kissane D**, Heckman C, Kim I, Penedo F, Lee D. (2020) Relationship communication and the course of psychological outcomes among couples coping with localised prostate cancer. *European Journal of Cancer Care*. 30(4):e13401. doi:10.1111/ecc.13401.

McGilvray SA, **Kissane, DW** (2020). Counseling in palliative care. Ch 57 in Bruera E, Higginson I, von Gunten C, Morita , Editors, *Textbook of Palliative Medicine and Supportive Care*, 3rd Edition, CRC Press, Taylor & Francis.

Michael NG, Bobevski I, Georgousopoulou E, O'Callaghan CC, Clayton JM, Seah D, **Kissane DW**. (2020) Unmet spiritual needs in palliative care: psychometrics of a screening checklist. *BMJ Supportive & Palliative Care*. bmjspcare-2020-002636. doi:10.1136/bmjspcare-2020-002636.

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Parker PA, Banerjee SC, Matasar MJ, Bylund CL, Schofield E, Li Y, Jacobsen PB, Astrow AB, Leventhal H, Horwitz S, **Kissane D**. (2020) Cancer worry and empathy moderate the effect of a survivorship-focused intervention on quality of life. *Psycho-Oncology* 29(6):1012-1018. doi:10.1002/pon.5371.

Watson M, **Kissane DW**, Editors (2020). Psycho-Oncology Care – Companion Guides for Clinicians II: Sexual health, fertility and relationships in cancer care. Oxford University Press, New York.

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Zaider TI, **Kissane DW**, Schofield E, Li Y, Masterson M. (2020) Cancer-related communication during sessions of family therapy at the end of life. *Psycho-Oncology,* 29: 373-380. doi.org/10.1002/pon.5268.

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Alan, Ada and Eva Selwyn Emergency Department

Grants

MRFF Monash Partners, Critical Care, rapid translational research flagship program. 'Emergency medicine wait time visibility'. (2019-2021), $250,000 **Walker K** (CI), **Joe K**, **Ben-Meir M**.

MRFF Monash Partners. 'Be your best: an innovative co-designed approach to frailty and care-transitions from hospital to home, in people aged 65 years or more'. (2019-2021), $198,000 Lowthian J (CI), Boyd L (AI), Rose M (AI), **Walker K** (AI) et al.

Cabrini Auric grant. 'Developing and testing virtual reality tools to reduce agitation in cognitively impaired older people in emergency departments'. (2019-2021), $147,000 **Blecher** (CI), **Walker K** (AI) et al.

Cabrini Improvement Research Grant. 'My Health Record in the emergency department: An investigation of adoption, utilisation and utility' (2020-2021), $15,000 **Mullins A** (CI), Ben-Meir M, Rankin D, Skouteris H.

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Key partnerships

Cancer Trials Australia (CTA)

Monash Partners Academic Health Science Centre (known as Monash Partners)

Monash Partners Comprehensive Cancer Consortium (MPCCC)

Australian Catholic University (ACU)

ACU College

La Trobe University

Monash University

Swinburne University

The University of Melbourne

The University of Notre Dame

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