SOLVE CHD

NHMRC Synergy Grant 2020 - 2025

Transforming post-hospital care for people with heart disease in Australia

Annual Report 2022

THE UNIVERSITY OF SYDNEY
THE UNIVERSITY OF WESTERN AUSTRALIA
DEAKIN UNIVERSITY
Heart Foundation
ACvA Australian Cardiovascular Alliance
ACRA Australian Cardiovascular Health and Rehabilitation Association
HEART SUPPORT AUSTRALIA
NHMRC
BUILDING A HEALTHY AUSTRALIA

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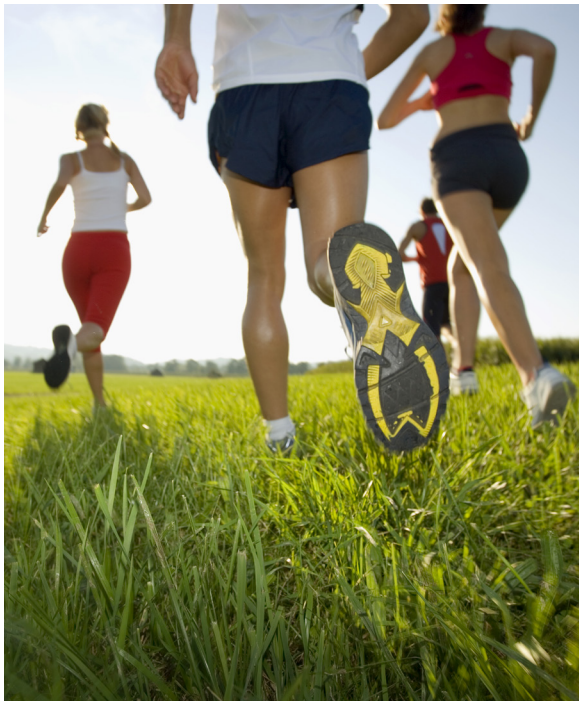
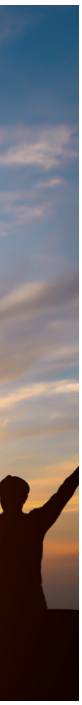


We acknowledge the traditional custodianship.

We pay our respects to those who have cared and continue to care for Country.



HIGHLIGHTS

$ 15.4 Million +

in total, from leveraged funding

1332 Citations

in total, from 150 countries

16 Projects

SOLVE CHD

at a glance...

85 Presentations

250+ Network members

from 100+ institutions

95 Publications

in total, 37.5% (by SJR) in top journals

“Our goal is to modernise post-discharge secondary prevention and reduce the burden of heart disease by decreasing deaths, hospitalisations and costs via a program of work that integrates data, technology, partnerships and capacity.”

Professor Julie Redfern
SOLVE-CHD Chief Investigator

“SOLVE-CHD is really starting to make a difference in the development of research and researchers. I can see there will be an impact on improving the care for people with coronary heart disease.”

Professor Robyn Gallagher
SOLVE-CHD Chief Investigator

MESSAGE FROM CHIEF INVESTIGATOR

On behalf of the SOLVE-CHD team, it is with great pleasure to present our 2022 Annual Report highlighting the key updates, activities, and accomplishments we have achieved in the past year.

The impact of COVID-19 continued to be felt in our community this year and there is no doubt that 2022 was very challenging. However, I am extremely proud of the resilience and determination of our talented SOLVE-CHD team and the synergy among our Network members. We have made remarkable advancements in all four key activity areas.

Despite a difficult year, we have shown excellent engagement with our members and wider communities through several initiatives and events with international and national partners. In particular, the SOLVE-CHD ICCPR CRFC Scholarship supported 22 recipients from nine countries across the world, including Brazil, Colombia, India, Mexico, and Pakistan etc., to obtain formal certification that allowed healthcare providers to deliver core cardiac rehabilitation components in low-resource settings and ensure broader access to cardiac rehabilitation services.

The inaugural SOLVE-CHD Conference Support Scholarship offered 12 Network members across all states in Australia to attend ACRA 2022 ASM in Gold Coast. This opportunity provided financial assistance to enable outstanding EMCRs and HDR Students to further their career development, build professional networks and connect with the wider community at this conference. This experience was so special as it was the first in-person interaction after two years of virtual conferences. We would like to continue these initiatives to support and engage more future health service research leaders in 2023.

In 2022, SOLVE-CHD supported nine new multidisciplinary collaborative research projects across Australia, held a number of consumer review workshops and produced 16 network membership newsletters. We also welcomed new talent to the team, and most notably, some of whom have made significant progress in their career within SOLVE-CHD.

The team has been continuously striving for success. It has been exciting to see many of our key members achieving recognition, winning prestigious awards, and contributing to influential leadership roles in their respective areas. In total, SOLVE-CHD has attracted over $15 million of leveraged funding since our establishment. Our Network members have almost doubled within the last year and reached 250.

It has been another successful year for SOLVE-CHD. We have continued to push the boundaries of innovation, collaboration, and excellence. Looking ahead, we are excited about the potential impact of our ongoing research program, as we continue to make a positive difference in cardiac rehabilitation and secondary prevention space. I also want to express my gratitude to our researchers, collaborators, partners, and supporters for your unwavering dedication and commitment to our mission.

Professor Robyn Gallagher
SOLVE-CHD Chief Investigator

OVERVIEW

Solving the long-standing evidence-practice gap associated with cardiac rehabilitation and secondary prevention of coronary heart disease (SOLVE-CHD) is a 5-year-NHMRC Synergy Grant. Our multidisciplinary team is made up of researchers, clinicians with allied health, nursing, cardiology, public health, health economics and psychology backgrounds as well as consumer advisors.

SOLVE-CHD builds on previous and current efforts. In particular, the Australian Cardiac Rehabilitation Measurement Taskforce where there has been national consensus and development of quality indicators for cardiac rehabilitation. SOLVE-CHD will see delivery of interlinked service reform and research across 4 key activities.

Transformative data & quality

New research

Capacity building

The Network

1. Transformative data & quality: Collection of real-time, consistent jurisdictional and national cardiac rehabilitation data with appropriate governance established. This will ultimately reduce inequity, improve patient outcomes and systems efficiency through performance metrics, benchmarking, and quality improvement. These data will be collected real-time and will be linked with electronic medical records.

2. New research: Development and investigation of novel interventions that utilise technology within the context of personalised models of care, usefulness, patient reported outcomes and value for money. These should be personalised and tailored according to need, patient preference and level of risk (to ensure treatment optimisation) and could be delivered using digital health. Examples include the potential of virtual reality, peer support and telehealth approaches.

3. Capacity building: Identify and cultivate multidisciplinary research capacity, community engagement and future health research leaders. Implement a program of project (small EMCR catalysts & pilot funds) and people support (PhD Scholarships & Post-Doctoral Research Fellowships) as well as opportunities for travel and exchange between working environments (where possible). These funds will be provided to projects and people answering specific research questions relevant to SOLVE-CHD.

4. The Network: We are establishing a virtual National Secondary Prevention Network to support and unify researchers, clinicians, government, non-government, and consumers. This will help facilitate sharing of solutions, building partnerships and provide a conduit for sharing resources.

OUR PEOPLE

Investigators

- Prof Julie Redfern, University of Sydney
- Prof Tom Briffa, University of Western Australia
- Prof Robyn Gallagher, University of Sydney
- Prof Adrienne O'Neil, Deakin University
- Prof Garry Jennings, Sydney Health Partners & University of Sydney
- Prof David Brieger, ANZ Research Institute & University of Sydney
- Emeritus Prof David Wood, National University of Ireland Galway
- Emeritus Prof Adrian Bauman, University of Sydney
- A/Prof Carolyn Astley, Australian Cardiovascular Health and Rehabilitation Association
- Prof Clara Chow, University of Sydney
- Prof Gemma Figtree, University of Sydney
- Dr Karice Hyun, University of Sydney
- Christine Connors, Top End Health Service
- A/Prof Simon Poon, University of Sydney
- Rachelle Foreman, Brisbane North PHN
- Dr Robert Herkes, Australian Commission on Safety and Quality in Health Care
- Prof Peter Thompson, Harry Perkins Institute of Medical Research; Sir Charles Gairdner Hospital University of Western Australia
- Steve Woodruffe, Southern Queensland Rural Health
- Dr Emma Thomas, University of Queensland
- Cate Ferry, Previously The Heart Foundation

Affiliate Appointments

- Dr Christian Verdicchio, Heart Support Australia
- Robert Zecchin, Western Sydney Local Health District
- Dr Susie Cartledge, Monash University

Post-Doctoral Research Fellows/Higher Degree Research Students

- Dr Sarah Gauci, Deakin University
- Dr Matthew Hollings, University of Sydney
- Dr Ling Zhang, University of Sydney
- Dr Clara Zwack, University of Sydney
- Dr Georgia Chaseling, University of Sydney
- Dr Nikky Gordon, University of Western Australia
- Dr Dion Candelaria, University of Sydney
- Rebecca Raeside, University of Sydney
- Joseph Weddell, University of Sydney
- Deborah Manandi, University of Sydney
- Tiffany Ellis, University of Sydney

Research Administration Support

- Julia Ning, University of Sydney
- Ritu Trivedi, University of Sydney

"SOLVE-CHD has brought together a mutlidisciplinary team of researchers from all over Australia and internationally, we are heartened at the prospect of outcomes from this collaboration."

Professor Tom Briffa
SOLVE-CHD Chief Investigator

POST-DOCTORAL RESEARCH FELLOWS

Dr Sarah Gauci | SOLVE-CHD Post-Doctoral Research Fellow | Deakin University

Sarah is a behavioural scientist and SOLVE-CHD Post-Doctoral Research Fellow. She has a PhD in health sciences and a background in psychology (BSc, BPsych (Hons)). Her SOLVE-CHD project aims to co-design a lifestyle-based mental health intervention for patients following a cardiovascular event. She has received over $40,000 in seed funding for this project. Sarah is also on the ACRA VIC/TAS committee.

Dr Ling Zhang | SOLVE-CHD Post-Doctoral Research Fellow | University of Sydney

Ling is a registered nurse and NAATI-certified translator whose research focuses on understanding the health information needs and the critical role of patient education across cardiac recovery trajectory, with a specific focus on underserved patient groups. Ling's flagship projects within the SOLVE-CHD program are centred around improving accessibility and equality of cardiac care using digital interventions.

Dr Matthew Hollings | SOLVE-CHD Post-Doctoral Research Fellow | University of Sydney

Matthew is an exercise physiologist whose research focuses on the importance of exercise for health and performance, with a particular interest in resistance training. His projects are centred around improving the quality and uptake of exercise and physical activity for persons with cardiovascular disease. He has received funding from the National Heart Foundation and is also the Implementation and Policy Clinician Lead for the Cardiovascular Initiative and part of the Executive Committee of the Allied Health, Science and Technology Council CSANZ.

Dr Clara Zwack | SOLVE-CHD Post-Doctoral Research Fellow | University of Sydney

Clara is a qualified physiotherapist and clinician researcher. Her project, Heart2Heart, looks at the provision of in-person and digital peer support for people with heart disease. The team has recently run focus groups with survivors of heart disease who receive peer support in a monthly group meeting setting, with the aim to learn about the benefits of attending such a program. She is also currently enjoying her positions on the NHMRC CAD Working Group, NSW ACRA committee and CPC EMCR committee.

Dr Nikky Gordon | SOLVE-CHD Post-Doctoral Research Fellow | University of Western Australia

Nikky is an exercise physiologist with clinical and research experience in cardiovascular disease primary and secondary prevention. Her main project with SOLVE-CHD is a mixed methods study aiming to improve CVD secondary prevention for people living in remote towns in the Midwest of Western Australia using group based telehealth. Specifically, individuals within a town will attend a telehealth secondary prevention program at a local venue, reducing travel and improving access and community cohesion.

Dr Georgia Chaseling | SOLVE-CHD Post-Doctoral Research Fellow | University of Sydney

Georgia is thermal and cardiovascular physiologist, who has completed her Bachelor of Exercise and Sport Science, honours, and a PhD. Her research focus on understanding the physiological and physical factors that determine human heat strain, heat-related health problems and developing sustainable measures to mitigate the health issues that are aggravated by climate change. She serves as a member on numerous committees such as the ASMR and the Australian Cardiovascular Alliance.

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HIGHER DEGREE RESEARCH STUDENTS

Dr Dion Candelaria | SOLVE-CHD PhD Student | University of Sydney

Dion is a Registered Nurse who has recently completed his PhD with the help of a SOLVE-CHD Scholarship, looking at the influence of cardiac rehabilitation service delivery characteristics on patient outcomes. Dion won the CSANZ Cardiovascular Nursing Council Rising Star Award, is the current Vice President/President-Elect of the Australian Cardiovascular Health and Rehabilitation Association (ACRA) NSW/ACT, and a part of the Charles Perkins Centre EMCR steering committee.

Rebecca Raeside | SOLVE-CHD PhD Student | University of Sydney

Rebecca has a Bachelor of Biomedical Science and Master of Public Health. Her PhD project is a three-phase study involving the co-design, effectiveness testing and evaluation of a community-based healthy lifestyle text message program (Health4Me) for adolescents aged 12-18 years, which is designed to support healthy lifestyle behaviours to prevent development of chronic diseases (including cardiovascular disease) as these young people progress into adulthood. She is a CSANZ research scholarship recipient, SOLVE-CHD scholarship recipient, and is part of 2 committees for digital health and young adults.

Joe Weddell | SOLVE-CHD PhD Student | University of Sydney

Joe is a PhD candidate with a background as a clinical nurse specialist in ICU and is an associate lecturer at the Sydney Nursing School. His research focuses on providing discharge education and support for a less known cause of heart attack called spontaneous coronary artery dissection (SCAD). His research also explores the role of partners and the impact of “brain fog” after heart attack. Recently, he has won best oral presentation and best oral poster awards for the presentation of his research investigating brain fog during admission for heart attack at local and state-wide conferences.

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Deborah Manandi | SOLVE-CHD PhD Student | University of Sydney

Deborah graduated from the University of Sydney with a Bachelor of Science (Medical Science) and Bachelor of Advanced Studies (Honours I). Her PhD aims to investigate and find strategies to reduce socioeconomic disparity in accessing cardiac rehabilitation. She is supported by the University of Sydney Tuition Fee Scholarship, SOLVE-CHD PhD Scholarship, and Faculty of Medicine and Health Postgraduate Research Supplementary Scholarship.

Tiffany Ellis | SOLVE-CHD Masters of Research Student | University of Sydney

Tiffany is a physiotherapist with seven years' experience working in the acute hospital setting. As part of her research, she is investigating the effectiveness of a new app, utilising avatar technology as a novel way to deliver inpatient education to survivors of acute coronary syndrome (ACS). Tiffany has received a Kickstarter Grant of $10,000 to support this study.

OUR PROJECTS

We have a number of projects that are led by our experienced SOLVE-CHD team.

Projects

1. The National Cardiac Rehabilitation Data Capture Project (led by Prof Robyn Gallagher)
2. MyHeartMate (led by Prof Gemma Figtree)
3. INTERCEPT (led by Prof Catriona Jennings)
4. Value for money in cardiac rehabilitation (led by Dr Sameera Senanayake)
5. National Cardiac Rehabilitation Quality Indicators
6. TEACH-RA Study (led by Prof Jeroen Hendriks)
7. Heart2Heart (led by Prof Julie Redfern)
8. QUICR Study (led by Prof Robyn Gallagher)
9. Physical activity and heart attack risk (led by Dr Matthew Hollings)
10. Heat health research (led by Dr Georgia Chaseling)
11. At the heart of the matter (led by Dr Sarah Gauci)
12. Chinese speakers and education for heart problems (led by Dr Ling Zhang)
13. Avatar based discharge education for patients with ACS (led by Tiffany Ellis)

Collaboration Projects

1. SPAN: Secondary Prevention in All in Need (led by Prof Tom Briffa)
2. Improve the outcome of patients with blocked leg arteries (led by Prof Jon Golledge)
3. MeasureIt! (led by A/Prof Nicole Freene)

The National Cardiac Rehabilitation Data Capture Project

Evaluating record keeping and data entry as part of routine care in cardiac rehabilitation programs across Australia

Lack of service data for cardiac rehabilitation in many countries limits understanding of program delivery, benchmarking and quality improvement initiatives. This study aimed to describe current practices, management, utilisation and engagement with quality indicators in Australian cardiac rehabilitation programs.

Reporting methods

79% electronic + paper

21% only paper

Usage of data...

57% reporting to managers

41% reporting to funders

56% to improve quality

43% support funding

31% for research

319 program coordinators completed online survey

Annual patient enrollements

31% of programs > 200 patients

46% of programs 51 - 200 patients

23% of programs < 50 patients

Awareness of Quality Indicators

High (**84%**) awareness

Used by only **52%** of providers

Using data for quality improvement...

more likely in programs **> 200 patients**

less likely in programs based in **Victoria, New South Wales** and **Western Australia**

Collection of service data for cardiac rehabilitation patient data and its justification is diverse limiting our capacity to benchmark and drive clinical practice. The findings strengthen the case for a national low burden approach to data capture for quality care.

Gallagher, R., Cartledge, S., Zwack, C., Hollings, M., Zhang, L., Gordon, N., Zecchin, R., O'Neil, A., Tirimacco, R., Phillips, S. and Astley, C., 2022. Patient Data Management in Australian Cardiac Rehabilitation Programs: Australian Data Capture Survey. Heart, Lung and Circulation, 31, p.S298.

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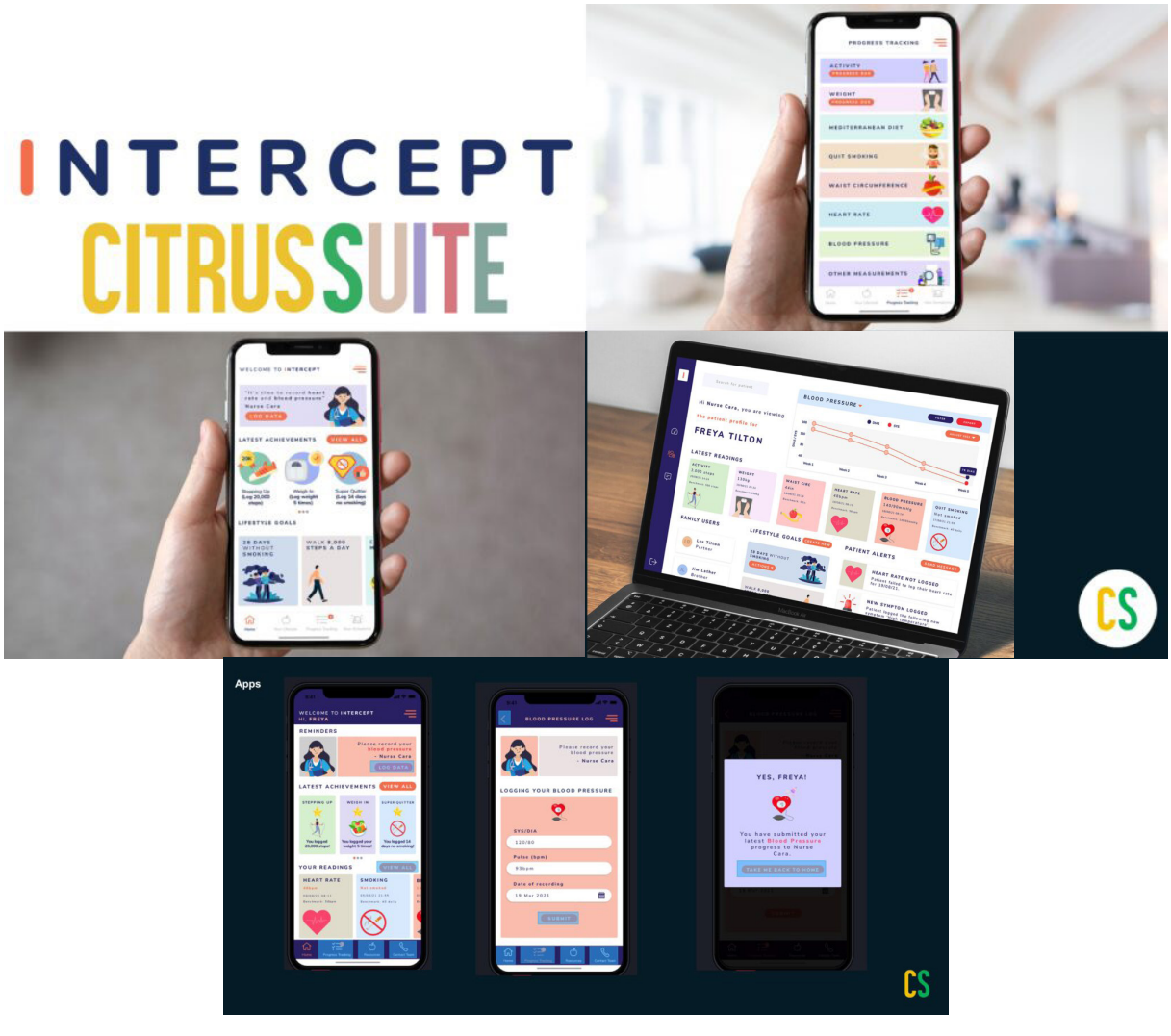
INTERCEPT

A nurse-led virtual program to improve secondary prevention in post-acute coronary syndrome (ACS) patients in the COVID-19 era with a nurse (prescriber) intervention using SMART technology

Led by Prof David Wood

The INTERCEPT-App is now fully developed by Citrus Suite with the support of a co-design patient group from Croi, the Heart and Stroke Charity, led by Irene Gibson (PhD student) and Professor Catriona Jennings together with the Nurse Portal. A non-randomised feasibility study with ethics approval is underway in a consecutive series of coronary patients in CCU/ CTU at Galway University Hospital. The purpose of the feasibility study is to determine the acceptability and usage of the I-App in a real world setting over a period of 16 weeks together with short term outcomes for lifestyle, risk factor control and adherence with cardioprotective medications. This feasibility study will lead to refinements in the I-App and Nurse Portal for formal evaluation in a randomised comparison with usual care. In parallel, and with additional support from SOLVE-CHD, wearables are being linked to the I-App in partnership with Withings: heart rate, steps (including active minutes) and blood pressure. The I-App, with linked technology, together with the Nurse Portal, will then be evaluated in a randomised controlled trial in 2023.



Value for money in cardiac rehabilitation

Led by Dr Sameera Senanayake

The objective of this study was to determine the long-term cost-effectiveness of a hybrid cardiac telerehabilitation and if it should be potentially implemented in the Australian context. Following a comprehensive literature search, we chose the Telerehab III trial, a multicentre randomised control trial that investigated the effectiveness of a long-term hybrid cardiac telerehabilitation program. We developed a decision analytic model to estimate the cost-effectiveness of the Telerehab III trial using a Markov process. Models were simulated in one-month cycles for a five-year time horizon, with transitions through distinct health states relevant to cardiac patients.

Results indicated that Telerehab III is highly unlikely to be cost-effective compared to the current practice in Australia. Exploration of alternate models of delivering cardiac telerehabilitation is still required. The results presented in this study enable policymakers to make informed decisions when planning for hybrid cardiac telerehabilitation programs.

Chinese speakers and education for heart problems

Led by Dr Ling Zhang

Patient education is essential and recommended in clinical guidelines to tackle the current high recurrence after a heart attack. However, traditional education methods do not always reach patients from culturally and linguistically diverse backgrounds, such as Chinese-speaking immigrants, who often have health literacy and language issues.

This project aims to co-adapt a patient education app for Chinese-speaking heart attack survivors, which is engaging, self-administered and addresses language and health literacy needs.

This project is built on the team's previous work and Heart Foundation recommendations: The Six Steps to Cardiac Recovery app and substantially involved with Chinese-speaking consumers and bilingual clinicians. In this app, a Chinese-speaking Avatar nurse Anxin uses fun and engaging ways to teach the users about their conditions, risk factors and how to manage the situations actively and to lead the patient through the education steps. This project will provide a framework for the future adaptation of the app into other languages dominantly spoken in Australia, including Arabic, Vietnamese, Italian and Greek.

Physical activity and heart attack risk

Exploring physical activity and heart attack risk in Australian adults with no cardiovascular risk factors

Led by Dr Matthew Hollings

The presence of standard modifiable cardiovascular risk factors (SMuRFs; hypertension, diabetes, smoking, hypercholesterolemia) increases the risk of cardiovascular events; however, recent data suggests that 1 in 4 myocardial infarctions (heart attacks) in Australia occur without these risk factors (i.e. SMuRF-less). Physical activity is protective against cardiovascular events across both low- and high-risk groups; yet this relationship has never been examined for SMuRF-less individuals.

The aim of this study is to leverage the baseline, 5- and 10-year follow-up data from >200,000 individuals in the 45 & Up Study to determine whether physical activity level is similarly protective against cardiovascular events for individuals without SMuRFs. If so, the outcome of this study may identify physical activity as a novel, and modifiable risk factor for cardiovascular morbidity in persons without "standard" cardiovascular risk factors. This study will thus improve our current methods of cardiovascular risk-stratification and build impetus for future funding opportunities for SMuRF-less individuals.

Dr Matthew Hollings (SOLVE-CHD Post-Doctoral Research Fellow) was able to secure funding for this project through the Heart Foundation's 2022 45 & Up Study Grant.

At the heart of the matter

Co-designing a lifestyle based mental health intervention for patients following a heart event

Led by Dr Sarah Gauci

For people with heart disease, poor mental health is related to worse health outcomes, including increased risk of future cardiac events, readmission to hospital, increased mortality, and lower quality of life. These patients also face increased barriers to care and feel that their mental health needs are often unmet within the current health care system.

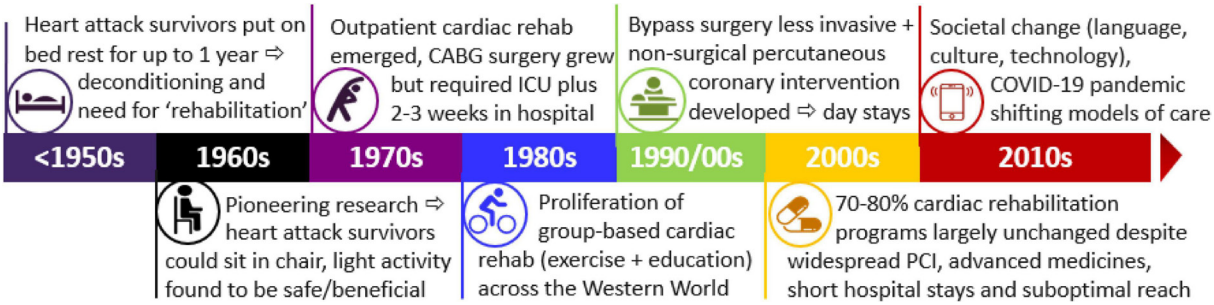
This project aims to address this by exploring patient needs through group modelling techniques and using the experience-based co-design framework to co-design a lifestyle intervention tailored towards patients' mental health needs following a heart event. The data generated in this study will be used to seek category one funding to develop this intervention and assess its feasibility.

Dr Sarah Gauci (SOLVE-CHD Post-Doctoral Research Fellow) was able to secure funding for this project through Deakin University's Faculty of Health Research Capacity Building Grant Scheme (HAtCH)

Historical context of cardiac rehabilitation: learning from the past to move to the future

Led by Prof Julie Redfern

Contemporary myocardial infarction (MI) care and management has evolved dramatically since the 1950's; yet outpatient rehabilitation remains underutilised. Deepening our understanding of the origins and history of cardiac rehabilitation highlights a contemporary shift required for policy and practice related to secondary prevention of coronary disease in light of societal changes as well as medical, digital and surgical advancements. Contemporary "cardiac rehabilitation" began when bed rest and physical inactivity was recommended and commonplace for MI survivors. Today, most patients who survive an MI, undergo reperfusion therapy, a short inpatient stay and are discharged with minimal physical morbidity. Despite this, the majority of modern day programs continue to be structured in the same way they have been for the past 50 years and this model has become incongruent with the contemporary context, especially in the COVID-19 era. This review aims to describe the historical foundations of cardiac rehabilitation to inform solutions and meet the demands of contemporary MI management. Delivering health systems reform to address modernisation is current healthcare challenge where a united and interdisciplinary effort is needed.



Redfern, J., Gallagher, R., O'Neil, A., Grace, S.L., Bauman, A., Jennings, G., Brieger, D. and Briffa, T., 2022. Historical context of cardiac rehabilitation: learning from the past to move to the future. Frontiers in cardiovascular medicine, 9, p.842567.

“The outcomes from SOLVE-CHD projects are all about translation, changing policy and practice in the space of cardiac rehabilitation.”

Professor Garry Jennings
SOLVE-CHD Chief Investigator

RESEARCH EXCELLENCE HIGHLIGHTS

SOLVE-CHD is made up of a multidisciplinary research team of researchers and clinicians with allied health, nursing, cardiology, public health, health economics and psychology backgrounds. In 2022, many of them have received extraordinary achievements in their respective areas, including several prestigious awards and holdings of impactful leadership positions.

Prof Julie Redfern, SOLVE-CHD CI

- NSW Woman of Excellence Award 2022
- NHMRC Elizabeth Blackburn Investigastor Grant Award
- Member of the World Heart Federation Scientific Committee
- Co-chair of Exercise, Prevention & Rehabilitation Council CSANZ

Prof Robyn Gallagher, SOLVE-CHD CI

- Alan Goble Distinguished Service Merit Award, ACRA 2022
- Chair, International Council of Cardiovascular Prevention & Rehabilitation
- Associate Editor, European Journal of Cardiovascular Nursing
- WHO Rehabilitation Alliance Research Working Group

Prof Tom Briffa, SOLVE-CHD CI

- Director, Centre for Health Services and Cardiovascular Research Group, School of Population and Global Health, University of Western Australia
- Executive member, Australia and New Zealand Alliance for Cardiovascular Trials
- Secretary, CSANZ Clinical Trials Working Group

Dr Karice Hyun, SOLVE-CHD AI

- 10th most downloaded paper in Heart, Lung and Circulation
- Heart, Lung and Circulation 2022 High Impact Award for Original Research
- University of Sydney Cardiovascular Initiative 2022 Rising Star Award

Dr Christian Verdicchio, SOLVE-CHD Affiliate

- CEO, Heart Support Australia
- Young Ambassador for Australia, European Association of Preventative Cardiology
- Senior Lecturer, Univeristy of Sydney

SOCIAL MEDIA

502
followers on Twitter

143
conections on LinkedIn

24,990
website views

20
features in the media

16
membership newsletters

60.4%
newsletter open rate

TOP TWEETS FOR 2022

8, 718 Impresssions
154 Total Engagement

7, 053 Impresssions
148 Total Engagement

12,875 Impresssions
259 Total Engagement

IMPACT & OUTCOMES

2020 to 2022

85 Presentations (33 Invited)

28 Poster Presentations

95 SOLVE-CHD Related Publications

LEVERAGED FUNDING

$ 15.4 million

2022 FUNDING HIGHLIGHTS

Prof Robyn Gallagher, MRFF Cardiovascular Health Mission Grant, Identifying and addressing barriers and enablers to implementing best-practice cardiac rehabilitation: the Quality Improvement in Cardiac Rehabilitation (QUICR) Cluster-Randomised Controlled Trial ($895 K)

Prof Julie Redfern, Clinician Researchers Initiative 2022 Clinician Researchers: Nurses, Midwives and Allied Health Grant Opportunity – Stream 3, Adoption, impact and sustainability of evidence-based practice into health care: Co-design and evaluation of projects, systems and processes ($299 K)

Dr Susie Cartledge, MRFF Preventive and Public Health Research Initiative, HeartPath+: Targeting self-efficacy and health literacy through patient education to prevent recurrent heart events in Australians with heart disease ($598 K)

Dr Ling Zhang, The University of Sydney China Studies Centre Individual Research Project Support Grant, Chinese speakers and education for heart problems ($15 K)

Dr Sarah Gauci, Deakin University Faculty HAtCH Grant, At the heart of the matter: Co-designing a lifestyle based mental health intervention for patients following a heart event ($26 K)

Dr Emma Thomas, NHMRC Investigator Grant, Improving equity, access and quality of cardiac rehabilitation services ($655 K)

Dr Matthew Hollings, National Heart Foundation – 45 & Up study, Physical activity and incidence of cardiovascular events in Australian adults over 45 with and without standard modifiable cardiovascular risk factors ($35 K)

Prof Gemma Figtree, NHMRC Investigator Grant, Innovative solutions towards reducing heart attacks- beyond classical risk factors ($2.03 M)

Tiffany Ellis, WSLHD Allied Health Kickstarter Research Grant, Effect of an avatar-based discharge education application on knowledge and behaviour in people after acute coronary syndrome ($10 K)

Deborah Manandi, The University of Sydney International Student Tuition Fee Scholarship ($150 K over 3 years)

Full list of grants found in Appendix page 45

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ICCPR CRFC Scholarship

International Council of Cardiovascular Prevention and Rehabilitation (ICCPR)

In 2022, together with The International Council of Cardiovascular Prevention and Rehabilitation (ICCPR) SOLVE-CHD was proud to support 22 scholarships from 9 countries across the world including Brazil, Colombia, India, Indonesia, Iran, Malaysia, Mexico, Nepal, and Pakistan (medium-low-income countries) to obtain ICCPR Cardiovascular Rehabilitation Foundations Certification (CRFC). Such certification provides health care providers and students the knowledge on how to deliver the core cardiac rehabilitation components according to ICCPR's consensus statement on cardiac rehabilitation in low-resource settings.

The ICCPR brings together national cardiac rehabilitation associations from across the globe to establish cardiovascular prevention and rehabilitation, and to support both low-to-middle and high-income countries to establish and augment, respectively, programs of cardiovascular prevention and rehabilitation (adapted to local needs and conditions) to ensure broader access to these proven services.

SOLVE-CHD is extremely pleased with this extraordinary international outreach. We will continue this great initiative in 2023 to support more cardiac rehabilitation centres.

Congratulations to the award recipients:

- Ana Paula Delgado Bomtempo Batalha, Brazil
- Mohammad Mehdi Hadavi, Iran
- Mega Febrianora, Indonesia
- Hamidreza Roohaza, Iran
- Masoumeh Sadeghi, Iran
- Adan Shabbir Ali Qazi, Pakistan
- Saleha Shah (PT), Pakistan
- Umbreen Azhar, Pakistan
- Kiran Amir Ali Amir Ali, Pakistan
- Mariya Jiandani, India
- Priya Chockalingam, India
- Juan Sarmiento, Colombia
- Jorge Lara Vargas, Mexico
- Abdul Hayee, Pakistan
- Qurat ul ain Mohtasim, Pakistan
- Paulina Lizbeth Rodriguez, Mexico
- Be Kim Leong, Malaysia
- Khushboo Bhatt, India
- Eduardo Alfonso Leyva Valadez, Mexico
- Amar Rana, Nepal
- Anjali Zende, India
- Narayan Subedi, Nepal

> The application of diet and psychology in cardiac rehabilitation is under utilised in India and its importance understated...This course gave me framework for understanding and the application of these aspects to deliver improved outcomes for my patients.

Khushboo Bhatt, India

> Being certified by ICCPR is meant to be internationally recognized and that is a great acheivement I aspired to in 2022. Thank you to @SolveChd for the scholarships!

Mega Febrianora, National Cardiovascular Center Harapan Kita, Indonesia

> Thanks to SOLVE-CHD and ICCPR for the scholarship and for providing a great online learning platform. This CRFC course enhanced my knowledge and experience and now helps me in better management of cardiac patients.

Abdul Hayee Kalhoro, Pakistan

CRFC

ICCPR CARDIAC REHAB FOUNDATIONS CERTIFICATION

Narayan Subedi SOLVE-CHD ICCPR scholarship recipient from Nepal met Prof Robyn Gallagher (photographed) at ACRA 2022 ASM held at Gold Coast, Australia.

Narayan Subedi (from Nepal) and Prof Robyn Gallagher

Conference Support Scholarships for ACRA 2022

SOLVE-CHD was proud to offer 12 full scholarships to attend the ACRA 2022 ASM in Gold Coast.

The purpose of this award was to enable outstanding candidates to further their career development and build professional networks, by providing the opportunity to attend this premier Australian conference for health professionals interested in cardiovascular health, secondary prevention, cardiac rehabilitation, heart failure, and chronic disease management.

A huge congratulations to the following SOLVE-CHD Network members who were successful applicants:

- Dion Candelaria, PhD Candidate, University of Sydney
- Gemma Wilson, Clinical Research Coordinator, University of Adelaide
- Hannah Mayr, Research Dietitian, Metro South Hospital and Health Service
- Katrien Janssen, Transition Care Programme Physiotherapist, St Vincent's Hospital Melbourne
- Ling Zhang, Post-Doctoral Research Fellow, University of Sydney
- Lisa Chen, Nurse Lecturer and Researcher, University of the Sunshine Coast
- Minke Hoekstra, Health Services Lead, Diabetes Tasmania
- Phoebe Pogorzelski, Clinical Nurse Coordinator Cardiac Rehabilitation Program, QLD Health; Rural Community
- Sarah Gauci, Associate Research Fellow, Deakin University
- Sherrie Chung, Honours Research Support, University of Sydney
- Vicki Paul, Cardiac Rehabilitation Clinical Nurse Consultant, Nepean Hospital
- Victor Gallegos-Rejas, PhD Candidate, The University of Queensland

Congrations to Dr Emma Thomas for winning the SOLVE-CHD Early Career Researcher Prize in recognition of her outstanding presentation.

> ...the most exciting thing about the ASM was to see how many options there are in the realm of cardiac nursing, and just how many passionate and hard working individuals and teams there are working in Australia. It has filled me with a desire to continue striving for good quality nursing work, whether this be research which may influence the interventions we provide, or good quality clinical care which should be at the core of all health services.

Gemma Wilson
Clinical Research Coordinator,
University of Adelaide

> I definitely learnt some valuable lessons here that I can implement in all parts of my clinical practice. All in all, a great experience.

Katrrien Janssen
Transition Care Programme Physiotherapist,
St Vincent's Hospital Melbourne

> Attending the 2022 ACRA ASM through a SOLVE-CHD Scholarship provided me the opportunity to get out of my comfort zone and achieve one of my professional development goals for the year – attending a conference and sharing my research outside of my nutrition and dietetics discipline.

Hannah Mayr
Research Dietitian,
Metro South Hospital and Health Service

SOLVE CHD

Retreat March 2022

The first SOLVE-CHD Retreat was held on 18th & 19th March 2022 at Terrigal NSW. It was attended by 20 people including members of the senior leadership group, EMCRs and HDR students united for the first time since COVID-19. Emeritus Professor Adrian Bauman and Professor Tom Briffa gave Keynote sessions about academic career and integrity. EMCR Dr Stephanie Partridge shared her insights of coping with Investigator Grants' feedback, PhD candidate Mr Dion Candelaria talked about his most recent paper and provided useful and practical tips for doctoral students to optimise their research development during and post-PhD. The group also had great time in team building activities and network sessions. It was a great success and we look forward to our next one in 2023.

Networking Dinner August 2022

The SOLVE-CHD CSANZ Networking Dinner was held on Friday, 12th August at KOI Broadbeach, Gold Coast. We had 42 delegates joining us from across Australia. Our delegates included the senior leadership team, policymakers, clinicians, allied health professionals, emerging leaders, EMCRs and PhDs— showcasing the diversity and inclusion of the SOLVE-CHD community. It was a wonderful evening full of fun & laughter, great food & drinks and more importantly new friendships and connections. We look forward to continuing the work with our amazing colleagues and community members to make a difference in cardiac rehabilitation and secondary prevention for all Australians.

"It was great to see everyone in-person at the SOLVE-CHD dinner at CSANZ, the energy and vibrance was inspiring. The synergy coming out from such an initative is heartening!"

Professor Adrienne O'Neil
SOLVE-CHD Chief Investigator

“...it helped me to consolidate my ideas for my project and understand it from the perspective of a consumer. I took away a lot from it...”

SOLVE-CHD Consumer Review Workshop attendee

CONSUMER INVOLEMENT

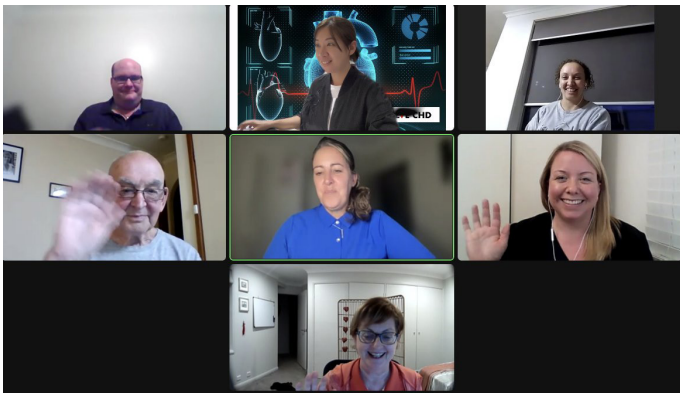
At SOLVE-CHD, we recognise the importance of engaging with consumers, carers, and families in its work to improve cardiac rehabilitation and secondary prevention. As part of this commitment, we have established specific objectives aimed at strengthening engagement with these groups. Our objectives are:

- Establish a framework to support and strengthen engagement activity
- Establish and grow SOLVE-CHD Consumer Network
- Progress consumer involvement on committees
- Promote partnership for engagement

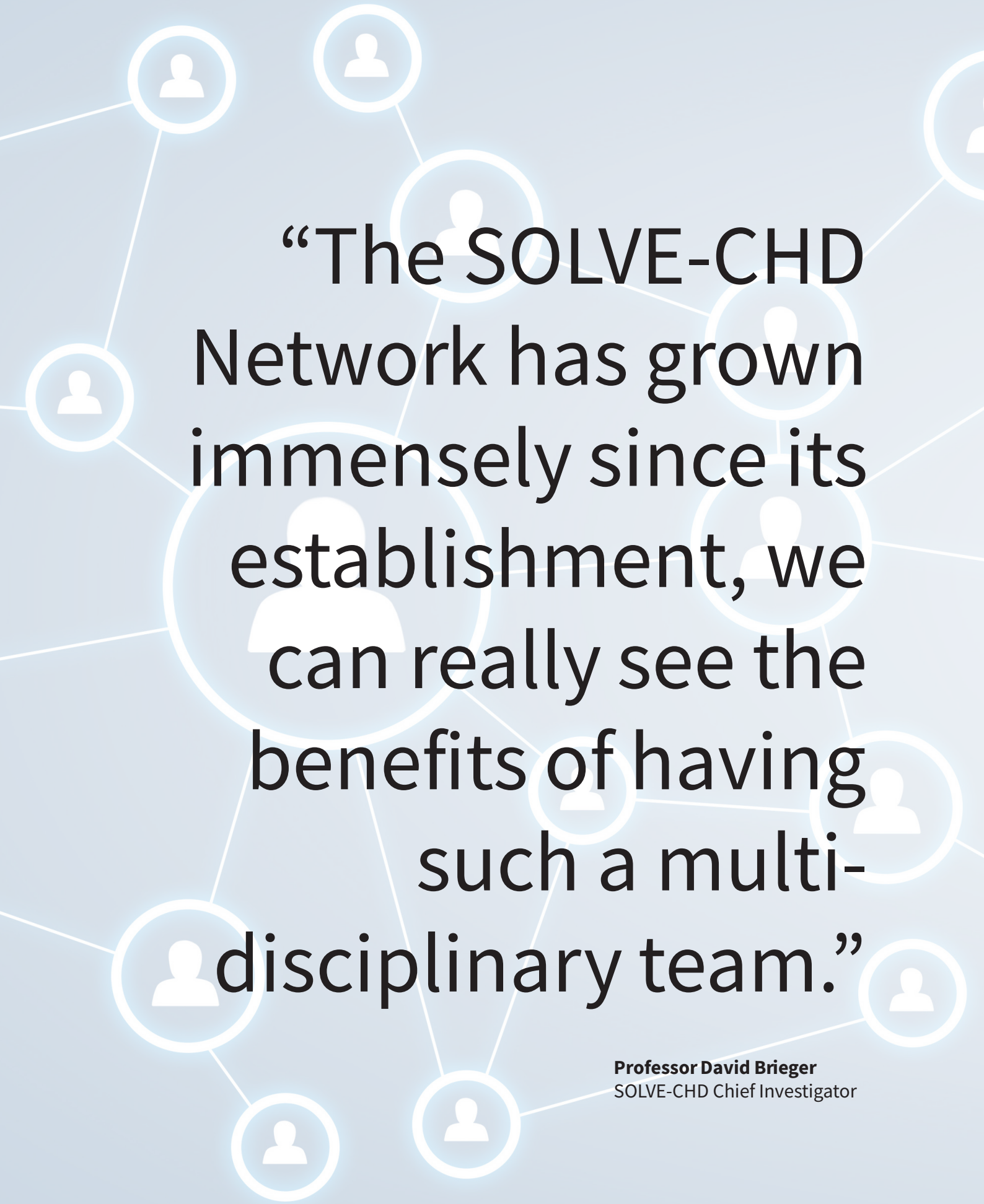
SOLVE-CHD is delighted to involve health consumers from diverse backgrounds in our research program from the very outset. The contributions and participation of these consumers are vital to the success of our research program. By engaging consumers in our research, we can ensure that our findings and interventions are relevant, effective, and acceptable to the people who will ultimately benefit from them. This approach is essential to improving outcomes and addressing health disparities in cardiac rehabilitation and secondary prevention.

During 2022, SOLVE-CHD held two Consumer Review Workshops aligned with major grant deadlines. These workshops provided an opportunity for researchers preparing grant applications for Heart Foundation Research Funding and Medical Research Future Fund to present their proposals in lay language to a panel of consumers with lived experience of heart disease. The input and feedback provided by our dedicated consumer advisors was invaluable in enhancing the quality and relevance of the research proposals, ultimately improving the chances of success in securing grant funding. We are extremely grateful to our wonderful consumer advisors for their vital contributions to our research program.

The feedback provided by our consumer advisors during the Workshops was incredibly valuable to the researchers, who found it extremely helpful in refining their grant proposals. The researchers are committed to incorporating the input from consumers into their proposals and are also mindful of the ongoing importance of consumer involvement throughout the entire lifespan of the project. Going forward, SOLVE-CHD is dedicated to offering similar workshops to assist and guide researchers within the network, promoting consumer involvement in project design and concept from the earliest stages.



Photograhphed are our SOLVE-CHD consumers at the ‘Consumer Review Workshop’ providing their valuable feedback to researchers submitting grant applications.



“The SOLVE-CHD Network has grown immensely since its establishment, we can really see the benefits of having such a multi-disciplinary team.”

Professor David Brieger
SOLVE-CHD Chief Investigator

THE NETWORK

The SOLVE-CHD Network, founded in 2021, has experienced significant growth and now boasts a membership of over 250 individuals from various backgrounds and disciplines, including researchers, clinicians, nurses, allied health professionals, policy makers, HDR students, and consumers. The Network focuses on the areas of cardiac rehabilitation and secondary prevention, and its diverse membership reflects the shared interest and passion in these fields. This unique group of individuals comes from more than 100 institutions, both nationally and internationally.

The SOLVE-CHD Network represents a dynamic and diverse community of professionals dedicated to improving cardiac rehabilitation and secondary prevention. Its interdisciplinary approach, focus on collaboration, and commitment to advocacy and policy development have the potential to drive significant progress in this field, improving outcomes for patients and transforming post-hospital care for individuals with cardiac disease.

Nursing

Allied Health

Medical

Research

Health Economics

Public Health

Consumers

Psychology

HDR Students

MOVING FORWARD...

Looking ahead, SOLVE-CHD has a busy and exciting year planned, with a strong focus on collaboration, research, and supporting the next generation of leaders in the field of cardiac rehabilitation and secondary prevention.

We will continue to focus on consumers involvement, ensuring that the perspectives and insights of people with lived experience of heart disease are incorporated into all aspects of research and policy development through focus groups, workshops, and other opportunities. We are working to deliver a large suit of funded projects and continue capacity building of students and EMCRs and clinicians.

In March, SOLVE-CHD will be holding its 2nd Annual Retreat in Terrigal NSW, providing an opportunity for members to come together, share their expertise and insights, engage in strategic planning, and collaborative activities that can advance their research goals.

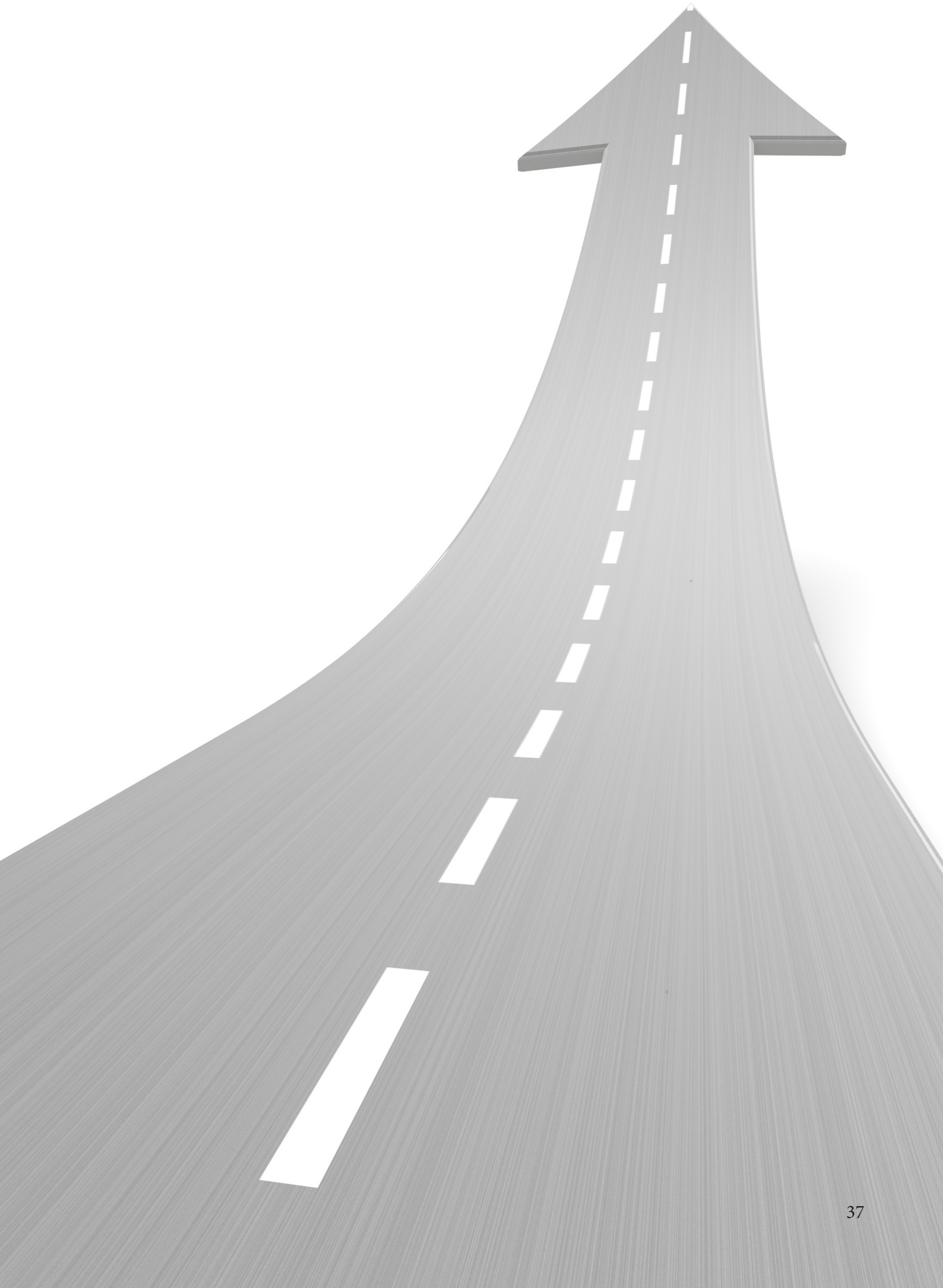
We will also continue National Data Capture Project and formal affiliation with the National Cardiac Registry, collaborating with various jurisdictions to initiate trials of the national database in the state. The ultimate goal is to efficiently manage and coordinate de-identified Australian data.

SOLVE-CHD will also provide several scholarship and award programs, including the ACRA ASM Conference Support Scholarship, EMCR Presentation Award, and ICCPR CRFC Scholarship Opportunity to our Network members. These initiatives are designed to support the development of EMCRs and practitioners and encourage the sharing of new ideas and insights across the global cardiac rehabilitation community.

Furthermore, SOLVE-CHD is excited to announce its partnership with the World Heart Federation Emerging Leaders Program 2023, to be held in Sydney in October this year. We strongly believe in investing in the next generation of leaders to advance our understanding and treatment of cardiovascular disease. We look forward to continuing to work with the World Heart Federation to support these efforts.

Overall, SOLVE-CHD is committed to improving the quality of post-hospital care for people with heart diseases, and the year ahead holds tremendous promise for advancing this mission. We are extremely grateful for the support of our partners, members, and the broader community and look forward to continuing to work together to make a positive impact in this important field.

SOLVE CHD



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PRESENTATIONS TO DATE

2021

1. Briffa T, The SOLVE-CHD National Data Capture and Record Keeping Initiative, Invited oral presentation, ACRA-Tas Annual Education Seminar, 2021, Tasmania, Australia
2. Briffa T, Future-proofing your cardiac rehabilitation program: The SOLVE-CHD National Data Capture and Record Keeping Initiative, Invited oral presentation, ACRA Seminar, 2021, Western Australia, Australia
3. Candelaria D, Human connection: a valuable element for health-related quality of life outcomes in cardiac rehabilitation during COVID-19, Poster presentation, ESC ACNAP-EuroHeartCare Congress, 2021, Virtual
4. Candelaria D, Parker H, Straiton N, Alharbi M, Gallagher R, Patient-reported physical activity as an important adjunct to objective exercise assessments in patients attending cardiac rehabilitation: A pilot study, Oral presentation, Using PROMS 'Down Under', 2021, New South Wales, Australia
5. Candelaria D, Randall S, Ladak L, Glinatsis H, Gallagher R, Human connection: a valuable element for health-related quality of life outcomes in cardiac rehabilitation during COVID-19, Mini oral presentation, CSANZ, 2021, South Australia, Australia
6. Candelaria D, Randall S, Ladak L, Glinatsis H, Gallagher R, Human connection: a valuable element for health-related quality of life outcomes in cardiac rehabilitation during COVID-19, Oral presentation, EuroHeartCare, 2021, Virtual
7. Candelaria D, Randall S, Ladak L, Glinatsis H, Gallagher R, Implementing remote delivered cardiac rehabilitation for coronary heart disease during COVID-19: A prospective cohort study of health-related quality of life outcomes and patient experience, Oral presentation, Implementation Science Health Conference Australia, 2021, Virtual
8. Candelaria D, Randall S, Ladak L, Glinatsis H, Gallagher R, In-person versus remote delivered cardiac rehabilitation for coronary heart disease during COVID-19: A prospective cohort study of health-related quality of life outcomes and patient experiences, Oral presentation, Prevention and Cardiac Rehabilitation Symposium, 2021, Singapore
9. Candelaria D, Validity and reliability of the PROMIS-29v2 and SF-12v2 for assessing health-related quality of life outcomes in cardiac patients, Oral presentation, ISOQOL Annual Conference, 2021, Virtual
10. Chung S, Candelaria D, Gallagher R, Women's health-related quality of life substantially improves with tailored cardiac rehabilitation: A systematic review and meta-analysis, Mini oral presentation, CSANZ ASM, 2021, South Australia, Australia
11. Chung S, Candelaria D, Gallagher R, Women's health-related quality of life substantially improves with tailored cardiac rehabilitation: A systematic review and meta-analysis, Oral presentation, EuroHeartCare, 2021, Virtual
12. Gallagher R, ACRA Quality Indicators and SOLVE-CHD, Invited oral presentation, CSANZ ASM, 2021, South Australia, Australia
13. Gallagher R, Cardiac rehabilitation: global issues needing an international collaborative response, Oral presentation, BACP, 2021, Belfast, Northern Ireland
14. Gallagher R, Gaming in Cardiac Rehabilitation, Invited oral presentation, EuroHeartCare Virtual showcase of global innovations and technologies in cardiac care, 2021, Virtual
15. Gallagher R, Kirkness A, Roach K, Glenatsis H, Bruntsch C, Fletcher A, Stephenson C, Noone E, Farrell M, Ashcroft A, Chung S, Candelaria D, Remote delivery of cardiac rehabilitation can achieve equivalent health-related quality of life outcomes to in-person methods in patients with coronary heart disease: a multi-site study, Oral presentation, EuroHeartCare, 2021, Virtual
16. Gallagher R, The Great Debate, Invited oral presentation, ESC Digital Summit, 2021, Virtual
17. Gallagher R, The psychosocial impact of wearable trackers, Oral presentation, ESC Digital Summit, 2021, Virtual
18. Gooley L, Gallagher R, Kirkness A, Roach K, Glenatsis H, Bruntsch C, Fletcher A, Stephenson C, Noone E, Farrell M, Ashcroft A, Chung S, Candelaria D, Remote delivery of cardiac rehabilitation can achieve equivalent health-related quality of life outcomes to in-person methods in patients with coronary heart disease: a multi-site study, Poster presentation, CSANZ ASM, 2021, South Australia, Australia
19. Gordon N, Briffa T, Future-proofing your cardiac rehabilitation program: The SOLVE-CHD National Data Capture and Record Keeping Initiative, Invited oral presentation, TRACS, Rural Health West, Heart Foundation and ACRA-WA, 2021, Western Australia, Australia
20. Gordon N, Briffa T, The changing face of patients referred for cardiac rehabilitation: hospitalisation patterns, medication adherence, and mortality risk, Invited oral presentation, ACRA VIC Seminar, 2021, Victoria, Australia
21. Luxton N, Gallagher R, Poon S, Sutarlim K, Redfern J, Eguardian Angel: Development of an Interactive Peer Support Digital Health System, Oral presentation, World Physiotherapy Congress, 2021, Virtual
22. Qiang Tu, QUEL team, Age-related differences in the receipt of primary healthcare services in managing contemporary patients with cardiovascular disease in Australia, Oral presentation, CSANZ ASM, 2021, South Australia, Australia
23. Redfern J, Peer review 101: constructive rather than destructive, Oral presentation, ESC ACNAP Webinar, 2021, Virtual
24. Redfern J, Oral presentation, ECR Development Day Australian Society for Medical Research, 2021, Virtual
25. Redfern J, Oral presentation, High Blood Pressure Council of Australia Peer Review and Mentoring, 2021, Virtual
26. Redfern J, Peer Review, Panels and Perils, Invited oral presentation, ACNAP Congress, 2021, Virtual
27. Redfern J, Physiotherapy and Global Cardiovascular Health, Oral presentation, World Congress of Physiotherapy, 2021, Virtual
28. Redfern J, Promising Growth towards the top In Cardiac

Research, Invited keynote presentation, 3rd World Cardiology and Cardiac Rehabilitation Meeting, 2021, Virtual

29. Redfern J, Virtual Showcase of global innovations and technologies in cardiovascular care, Invited roundtable and judge, EuroHeartCare, 2021, Virtual

30. Shi W, Ghisi G, Zhang L, Gallagher R, Patient education interventions for health behaviour change in adults diagnosed with coronary heart disease: a systematic review, meta-analyses and meta-regressions, Oral presentation, CSANZ ASM, 2021, South Australia, Australia

31. Shi W, Ghisi GLM, Zhang L, Hyun K, Pakosh M, Gallagher R, Patient education interventions for health behaviour change in adults diagnosed with coronary heart disease: a systematic review and meta-analysis, Oral presentation, EuroPrevent, 2021, Virtual

32. Smith M, Orchard J, La Gerche A, Gallagher R, Fitzpatrick J, Female or Fifty - Is Cardiac Rehabilitation fit for purpose?

33. Straiton N, Gullick J, Gallagher R, Getting back to normal – how functional recovery impacts the acceptability of transcatheter aortic valve implantation (TAVI) for older adults with severe aortic stenosis: a qualitative analysis, Oral presentation, Prevention and Cardiac Rehabilitation Symposium, 2021, Singapore, Singapore

34. Zhang L, Development of an avatar-based mobile application to improve discharge education in patiants with heart attack: an evidence-based and co-design approach, Oral presentation, Digital Health Week, 2021, Virtual

35. Zhang L, Online health information-seeking and eHealth literacy among first-generation Chinese immigrants: findings from an Australian survey, Poster presentation, Digital Health Week, 2021, Virtual

36. Zhao E, Lowres N, Naismith S, Tofler G, Bauman A, Gallagher R, Cognitive function and the relationship with health literacy and secondary prevention in acute coronary syndrome patients at early discharge, Oral presentation, EuroPrevent, 2021, Virtual

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37. Candelaria D, Gallagher R, Hendriks J, Future-proofing your research career post-PhD: top tips for doctoral students, Oral presentation, CSANZ ASM, 2022, Queensland, Australia

38. Candelaria D, Gullick J, Randall S, Ladak LA, Gallagher R, Predictors of poor exercise self-efficacy improvements after cardiac rehabilitation, Poster presentation, ESC Preventive Cardiology Conference, 2022, Virtual

39. Candelaria D, Gullick J, Randall S, Ladak LA, Gallagher R, Social determinants predict poor exercise self-efficacy outcomes in cardiac rehabilitation, Oral presentation, CSANZ ASM, 2022, Queensland, Australia

40. Cartledge S, Gallagher R, Zwack C, Hollings M, Zhang L, Gordon N, Zecchin R, O'Neil A, Tirimacco R, Phillips S, Briffa T, Astley C, Redfern J, Barriers and enablers to collecting Australian national cardiac rehabilitation quality indicators: a national survey, Oral presentation, ACRA ASM, 2022, Queensland, Australia

41. Chaseling G, Bartlett A, Jay O, Gagnon D, Effects of Beta-Blockers on Thermal and Cardiovascular Strain of Adults With Coronary Artery Disease During Extreme Heat Events, Poster presentation, Experimental Biology, 2022, Pennsylvania, United States

42. Chaseling G, Extreme heat and adverse cardiovascular outcomes, Invited oral presentation, CSANZ ASM, 2022, Queensland, Australia

43. Chaseling G, Extreme heat and human health, Invited plenary presentation, Sydney Ideas, 2022, New South Wales, Australia

44. Collin P., Giordano M, Nguyen B, Manandi D, Lin P, Wellbeing Health & Youth Commission, WH&Y it matters: Co-creating national priorities for health & wellbeing research and policy with young people, Oral presentation, AAAH Youth Health Conference, 2022, Victoria, Australia

45. Collin P, Giordano M, Nguyen B, Manandi D, Lin P, Wellbeing Health & Youth Commission, The "WH&Y" and HOW of youth-informed health research: Rights, reflections and resources advancing adolescent health research and translation, Symposium presentation, AAAH Youth Health Conference, Victoria, Australia

46. Collin P, Giordano M, Nguyen B, Manandi D, Lin P, Wellbeing Health & Youth Commission, WH&Y it matters: Co-creating national priorities for health & wellbeing research and policy with young people, Invited oral presentation, SWSLHD Advisory Group Presentation, 2022, New South Wales, Australia

47. Duggan S, Zhang L, Candelaria D, Ghisi G, Gallagher R, Mortality, morbidity and cardiovascular risk factors outcomes from cardiac rehabilitation in ethnic minority groups: a systematic review and meta-analysis, Poster presentation, ESC ACNAP-EuroHeartCare Congress, 2022, Madrid, Spain

48. Gallagher R, SOLVE-CHD Workshop: Using Electronic Data in Cardiac Rehabilitation, Oral presentation, ACRA ASM, 2022, Queensland, Australia

49. Gallagher R, Codesign Serious gaming for cardiac health: Designing tools in partnership, Invited oral presentation, ESC Congress, 2022, Barcelona, Spain

50. Gallagher R, Australian Cardiac Rehabilitation Quality Indicators, Oral presentation, AACVPR ASM, 2022, Florida, United States

51. Gallagher R, Challenges in preventive cardiology: how to manage at a distance, Discussant, ESC Preventive Cardiology, 2022, Virtual

52. Gauci S, Cartledge S, Redfern J, Gallagher R, Huxley R, Lee CMY, Vassallo A, O'Neil A, Gender and sex in cardiovascular disease: Biology, bias, or both?, Poster presentation, CSANZ ASM, 2022, Queensland, Australia

53. Gauci S, Food for thought: The role of diet and cardiometabolic health in cognitive decline?, Invited oral presentation, Baker Seminar Series, 2022, Victoria, Australia

54. Gauci S, The role of Mental Health and Cognition in Secondary Prevention, Invited oral presentation, Safer Care Victoria Learning Session- Heart Disease and Mental Health, 2022, Victoria, Australia

55. Gauci S, Young LM, White DJ, Reddan JM, Lassemillante AC, Meyer D, Pipingas A, Scholey A, Diet moderates the relationship between arterial stiffness and cognition, Oral presentation, ACRA ASM, 2022, Queensland, Australia

56. Hollings M, Mavros Y, Kay S, Anderberg K, Baker M, Wang Y, Zhao R, Meiklejohn J, Climstein M, O'Sullivan A, De Vos N, Baune B, Blair S, Singh N, Flatarone Singh M, High intensity power training improves ambulatory blood pressure for hypertensive older adults with type 2 diabetes: results from the GREAT2DO randomised controlled trial, Poster presentation, CSANZ ASM, 2022, Queensland, Australia

57. Hollings M, Mavros Y, Kay S, Anderberg K, Baker M,

Wang Y, Zhao R, Meiklejohn J, Climstein M, O'Sullivan A, De Vos N, Baune B, Blair S, Simar D, Singh N, Flatarone Singh M, Metformin impairs the cardiorespiratory fitness adaptation to high-intensity power training in older adults with type 2 diabetes: results from the GREAT2DO randomised controlled trial, Oral presentation, CSANZ ASM, 2022, Queensland, Australia

58. Manandi D, Hafiz N, Tu Q, Redfern J, Hyun K, The development of assessment tools for the Plan-Do-Study-Act cycle, Poster presentation, CSANZ ASM, 2022, Queensland, Australia

59. Raeside R, Jia S, Hyun K, Singleton A, Gardner L, Champion K, Redfern J, Partridge SR, Effectiveness of digital health interventions targeting lifestyle risk factors on improving adolescent mental health or wellbeing: a systematic review, Oral presentation, AAAH Youth Health Conference, 2022, Victoria, Australia 2022, Victoria, Australia

60. Raeside R, Jia S, Redfern J, Partridge SR, Navigating the online world of lifestyle health information: an adolescent perspective, Poster presentation, 24th IUHPE World Conference, 2022, Virtual

61. Raeside R, Partridge SR, Redfern J, HEALTH4ME Team, Co-design of health4me: a healthy lifestyle text message program for adolescents, Symposium presentation, International Society of Behavioural Nutrition and Physical Activity Annual Meeting, 2022, Arizona, United States

62. Raeside R, Partridge SR, Redfern J, HEALTH4ME Team, Co-designing the Health4Me text message intervention to support and improve adolescent's physical and mental health outcomes: an active research partnership with adolescents, Oral presentation, CSANZ ASM, 2022, Queensland, Australia

63. Redfern J, Innovative interventions to improve secondary prevention for cardiovascular disease, Invited oral presentation, CSANZ ASM, 2022, Queensland, Australia

64. Redfern J, Learning from the past to move to the future of cardiac rehabilitation, Invited keynote presentation, ACRA ASM, 2022, Queensland, Australia

65. Redfern J, How to build your team- team leader perspective, Invited oral presentation, The CVRN EMCR Masterclass: Putting EMCR into tEaM and collaboration, 2022, New South Wales, Australia

66. Redfern J, Responding to Reviewers, Invited oral presentation, Digital Health Early Career Research Community Webinar, 2022, Virtual

67. Redfern J, Cardiovascular disease secondary prevention and cardiac rehabilitation, Oral presentation, Holsworth Research Initiative Seminar Series, 2022, Virtual

68. Zecchin R, Dickson C, Hungerford J, Leow J, Lindsay G, Mander R, Saliba I, Denniss AR, A blueprint for the continuation of comprehensive cardiac rehabilitation during the COVID-19 pandemic. An Australian single hospital experience, Poster presentation, ESC Congress, 2022, Barcelona, Spain

69. Zecchin R, In the Footsteps of Cardiovascular Giants. A Reflective Journey of Collaboration, Collegiality and Change as a Nurse Clinician-Researcher, Invited oral presentation, CSANZ ASM, 2022, Queensland, Australia

70. Zhang L, Gallagher R, Du H, Barry J, Foote J, Clark R, A consumer co-designed, self-delivered, Avatar-based patient discharge education application improves acute coronary syndrome (ACS) patient knowledge, Oral presentation, ACRA ASM, 2022, Queensland, Australia

71. Zhang L, Gallagher R, Du H, Barry J, Foote J, Clark R, Using a co-designed, self-delivered, Avatar-based patient discharge education application to improve acute coronary syndrome patient knowledge, Invited oral presentation, ESC Congress, 2022, Barcelona, Spain

72. Zhang L, Koo FK, Gallagher R, I really want to know what is wrong with my heart and what should I do': a qualitative study of Chinese immigrants, Poster presentation, ESC ACNAP-EuroHeartCare Congress, 2022, Madrid, Spain

73. Zhang L, Gallagher R, Du H, Barry J, Foote J, Clark R, Using a co-designed, self-delivered, Avatar-based patient discharge education application to improve acute coronary syndrome patient knowledge, Oral presentation, CSANZ ASM, 2022, Queensland, Australia

74. Zhang L, Koo F, Gallagher G, Poor heart disease and health services knowledge in Chinese immigrants with limited English language, Poster presentation, CSANZ ASM, 2022, Queensland, Australia

75. Zhang L, eHealth literacy of Chinese immigrants, Invited oral presentation, ESC Congress, 2022, Barcelona, Spain

76. Zwack C, Stress and its relationship to cardiovascular risk in young adults with intellectual disability, Poster presentation, CSANZ ASM, 2022, Queensland, Australia

77. O'Neil A, Lifestyle modification forms the foundation of care for mood disorders – now what?, Invited keynote presentation, RANZCP ACT ASM, 2022, Australian Capital Territory, Australia

78. O'Neil A, Lifestyle based-mental health care: What does the latest evidence tell us? Mental Health Re-Imagined, Invited plenary presentation, Australian Society of Lifestyle Medicine, 2022, Queensland, Australia

79. O'Neil A, Lifestyle-based mental health care- what clinicians need to know, Invited keynote presentation, Australian Society of Lifestyle Medicine, 2022, Queensland, Australia

80. O'Neil A, What is the relevance of diet to mental health in cardiovascular disease?, Invited oral presentation, CSANZ ASM, 2022, Queensland, Australia

81. Jennings G, Co-convenor and presentation, National Roundtable on Cardiovascular Disease Implementation and Policy, 2022, Australian Capital Territory, Australia

82. Jennings G, Invited chair, National Roundtable on Cholesterol Management, 2022, Australian Capital Territory, Australia

83. Jennings G, Introducing the Global Cardiovascular Research Funders Forum, Invited oral presentation, World Heart Summit, 2022, Geneva, Switzerland

84. Jennings G, New treatments, technologies, and approaches in heart health, Invited plenary presentation, World Heart Summit, 2022, Geneva, Switzerland

85. Weddell J, Age and Marital Status Predict Mild Cognitive Impairment During Acute Coronary Syndrome Admission, Oral presentation, CPC EMCR Symposium, 2022, New South Wales, Australia

GRANTS TO DATE

1. Julie Redfern, Guardian Angel: Implementation of a peer support program for people with heart disease, Medical Research Future Fund, $655,522.17 (2021-2023)
2. Julie Redfern, Modernising cardiac rehabilitation and secondary prevention of heart disease, National Health and Medical Research Council Investigator Grant: Leadership 2, $2,872,000 (2022 – 2026)
3. Julie Redfern, Providing a peer support program to people with heart disease across NSW: An implementation project, NSW Health: Cardiovascular Senior Researcher Grant, $750,000.00 (2022-2024)
4. Tom Briffa, SPAN: Secondary Prevention for all in need, National Heart Foundation Strategic Grant, $1,000,000.00 (2021-2023)
5. Adrienne O'Neil, Translating lifestyle-based mental health care into practice, National Health and Medical Research Council Investigator Grant: Emerging Leader 2, $1,567,000.00 (2022-2026)
6. Dion Candelaria, Patient-focused outcomes from cardiac rehabilitation: Influence of service delivery characteristics, University of Sydney Paulette Isabel Jones Postgraduate Research Completion Scholarship, $7,000.00 (2021)
7. Karice Hyun, Improving influenza vaccination rate for the prevention of cardiovascular events, National Health and Medical Research Council Investigator Grant: Emerging Leader 1, $645,205.00 (2021-2025)
8. Karice Hyun, Sydney Informatics Hub Project Scheme 2021, $33,600.00 (2021)
9. Karice Hyun, NSW Health Cardiovascular Research Capacity Grants: Early-Mid Career Grant, $369,700.00 (2021-2023)
10. Deborah Manandi, Exploring and addressing the socioeconomic disparity in accessing cardiac rehabilitation, Sydney International Student Award (Indonesia), $10,000.00 (2022)
11. Rebecca Raeside, Health4Me A text message intervention to improve adolescent health and wellbeing via primary care, Cardiac Society of Australia and New Zealand Research Scholarship, $36,863.00 (2022)
12. Matthew Hollings, Gemma Figtree, Karice Hyun, Julie Redfern, Physical activity and incidence of cardiovascular events in Australian adults over 45 with and without standard modifiable cardiovascular risk factors, National Heart Foundation– 45 & Up study, $35,000 (2022 – 2023)
13. Robyn Gallagher, Julie Redfern, Adrienne O'Neil, David Brieger, Robyn Clark, Tom Briffa, Adrian Bauman, Karice Hyun, Michelle Cunich, Gemma Figtree, Susie Cartledge, Ling Zhang, Melissa Tinsley, Robert Zecchin, Sarah Gauci, Matthew Hollings. Clara Zwack, Judy Ford, Identifying and addressing barriers and enablers to implementing best-practice cardiac rehabilitation: the Quality Improvement in Cardiac Rehabilitation (QUICR) Cluster-Randomised Controlled Trial, Medical Research Future Fund Cardiovascular Health Mission Grant, $894,507.00 (2022-2025)
14. Nicole Freene, Rachel Davey, Steven McPhail, Zephanie Tyack, Richard Keegan, Theophile Niyonsenga, Robyn Gallagher, Walter Abhayaratna, Christian Verdicchio, Breanne Kunstler, A very brief intervention for physical activity behaviour change in cardiac rehabilitation: the 'Measure It!' trial, Medical Research Future Fund Cardiovascular Health Mission Incubator, $510,069.50 (2022-2025)
15. Daniel Gagnon, Georgia Chaseling, Martin Juneau, Marie Lordkipanidze, Matthiew Pelletier-Galarneau, Antoine Rochon, Marie-Claude Guertin, David Kaiser, Heat-related cardiovascular mortality: Investigations into potential pathophysiological mechanisms, Heart and Stroke Foundation Canada, $292,542.00 (2022-2025)
16. Ollie Jay, Georgia Chaseling, Troy Cross, Nicole Vargas, Anthony Capon, James Smallcombe, "Heat Stress Scale" for reducing personal health risk during heatwave disasters, NSW Disaster Risk Reduction Funds, $435,000.00 (2022-2024)
17. Georgia Chaseling, Julie Redfern, Karice Hyun, Troy Cross, Nicole Vargas, Katrina Tonga, Kazuaki Negishi, Identifying the effects of extreme heat and air quality on cardiorespiratory emergency departments visits in NSW, Heat Health Research Incubator Collaborative Funding, $6,735.00 (2022)
18. Julie Redfern, Clara Zwack, My Heart, My life Resign Project Literature Review 2022, National Heart Foundation, $10,000.00 (2022)
19. Tiffany Ellis, Effect of an Avatar-Based Discharge Education Application on Knowledge and Behaviour in People after Acute Coronary Syndrome, WSLHD Allied Health Kickstarter Research Grant, $10,000.00 (2023)
20. Ling Zhang, FMH EMCR Boost Scheme Travel Stream, $4,000.00 (2022)
21. Matthew Hollings, FMH EMCR Boost Scheme Travel Stream and Publication Stream, $5,188.00 (2022)
22. Clara Zwack, FMH EMCR Boost Scheme Travel Stream, $1,880.00 (2022)
23. Georgia Chaseling, FMH EMCR Boost Scheme Travel Stream, $1,188.00 (2022)
24. Emma Thomas, Improving equity, access and quality of cardiac rehabilitation services, National Health and Medical Research Council Investigator Grant: Emerging Leader 1, $655,150.00 (2023-2027)
25. Gemma Figtree, Innovative solutions towards reducing heart attacks- beyond classical risk factors, National Health and

Medical Research Council Investigator Grant: Emerging Leader 2, $2,029,302.00 (2023-2027)

26. Sarah Gauci, At the heart of the matter: Co-designing a lifestyle based mental health intervention for patients following a heart event, Deakin University Faculty HAtCH Grant, $26,429.00 (2022-2023)

27. Sarah Gauci, Adrienne O'Neil, Susie Cartledge, At the heart of the matter: Co-designing a lifestyle based mental health intervention for patients following a cardiovascular event, IMPACT Seed Funding, $18,384.40

28. Deborah Manandi, Exploring and addressing the socioeconomic disparity in accessing cardiac rehabilitation, University of Sydney International Student Tuition Fee Scholarship, $200,000.00 (2022-2025)

29. Ling Zhang, Chinese speakers and education for heart problems, University of Sydney China Studies Centre, $15,740 (2023)

30. Susie Cartledge, Cyril Hennequin, Dion Stub, Janet Bray, Alison Beauchamp, Barbara Murphy, Ella Zomer, Li Li, Ling Zhang, Rebecca Nourse, Adrienne O'Neil, Andrea Driscoll, Julie Redfern Robyn Gallagher, Rory Wolfe, HeartPath+: Targeting self-efficacy and health literacy through patient education to prevent recurrent heart events in Australians with heart disease, Medical Research Future Fund Preventive and Public Health Research Initiative, $589,381.00 (2023-2025)

31. Thomas Astell-Burt, Katarzyna Olcon, Elizabeth Halcomb, Lorna Moxham, Lennert Veerman, Evangelos Pappas, Monique Francois, Marijka Batterham, Rowena Ivers, Xiaoqi Feng, Julie Redfern, Sonali Gnanenthiran, Stewart Vella, PANDA Trial: Physical Activity in Nature for Cardiometabolic Diseases in People Aged 45y+, Medical Research Future Fund Effective Treatments and Therapies, $1,491,204.51 (2023-2026)

32. Julie Redfern, Andrew Baillie, Raymond Chan, Caleb Ferguson, Robyn Gallagher, Alexis Hure, Karice Hyun, Debra Jackson, Stephanie Partridge, Mitchell Sarkies, Catherine Sherrington, Adoption, impact and sustainability of evidence-based practice into health care: Co-design and evaluation of projects, systems and processes, Clinician Researchers Initiative- 2022 Clinician Researchers: Nurses, Midwives and Allied Health Grant Opportunity – Stream 3, $299,188.94