



THE UNIVERSITY OF
SYDNEY

—
Westmead Applied
Research Centre

QUARTERLY REPORT

Q3 July – September 2022



Director's Message

It's with pleasure we present the first Westmead Applied Research Centre's (WARC's) Quarterly report. We have initiated the WARC Quarterly to bring all-staff and students together in-person at least four times per year to share key updates, activities and achievements. Across these meetings students and project teams will have opportunities to showcase their research. In addition, we will report on progress towards key performance indicators for the Centre. By doing this we hope to keep everyone abreast of activities, have more opportunities to generate new ideas and collaborations and more opportunities to review our strategy. The Quarterly report will be released to our internal and external stakeholders after the meeting, and you are welcome to share it with your friends and colleagues.

With respect to the next Quarter, here are some of the key activities that are occurring. We will be working on more strategies to grow our national profile. We aim to continue to grow our profile as a respected innovative applied research centre in clinical and digital health for cardiometabolic and chronic conditions. We will be encouraging internal and external stakeholders to input on our growth strategy. We will be promoting the concepts of Shared Tasks. The concept combines both the cultural aspects of helping and contributing to group activities and jobs as well as effective collaboration and teamwork. We will advocate that all staff, academics, professionals, students contribute to being part of the whole. Contributing to the whole increases self-value, builds morale and creates efficiencies for the team. As WARC increases in size, all of these are important. We will be working on identifying a list of 'Shared tasks' and then 'sharing' them as well as how to celebrate excellence in collaboration. We have commenced reviewing the Digital Health Stream and will be continuing this during the next quarter.

WARC was established by the University of Sydney in Collaboration with the Western Sydney Local Health District with expertise and track record in clinical and digital health approaches to cardiometabolic and chronic conditions. You can track our activities on our [website](#) and by following us on Twitter [@WARC_USYD](#) and [LinkedIn](#).

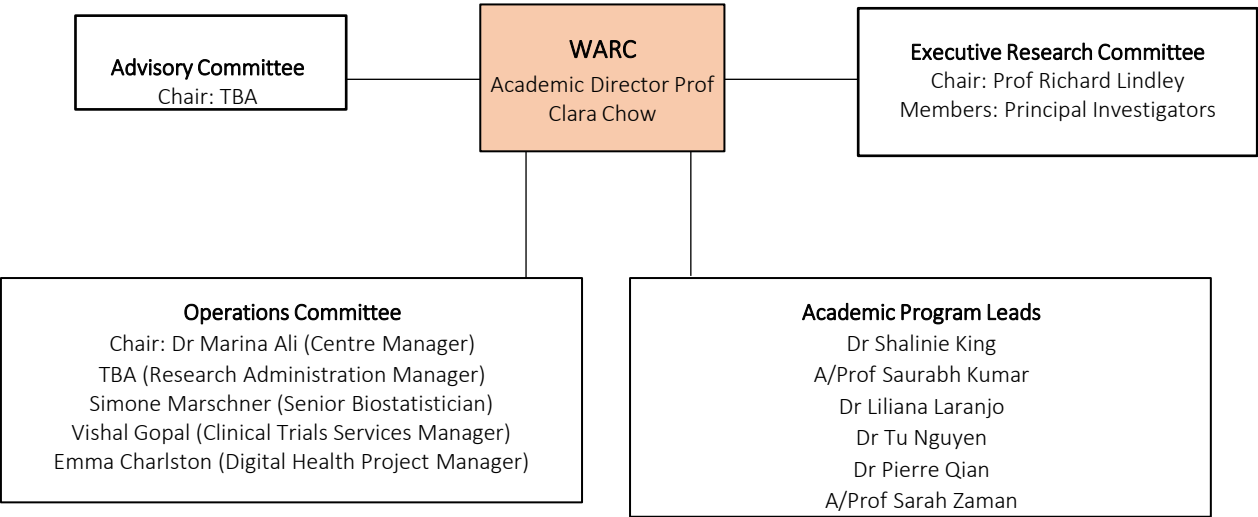
Thank you to the huge team effort that has contributed to the success of the first three quarters of 2022.

Best wishes

Clara Chow | Professor of Medicine and Academic Director

OUR GOVERNANCE STRUCTURE

These groups are responsible for designing, implementing and refining our strategy.



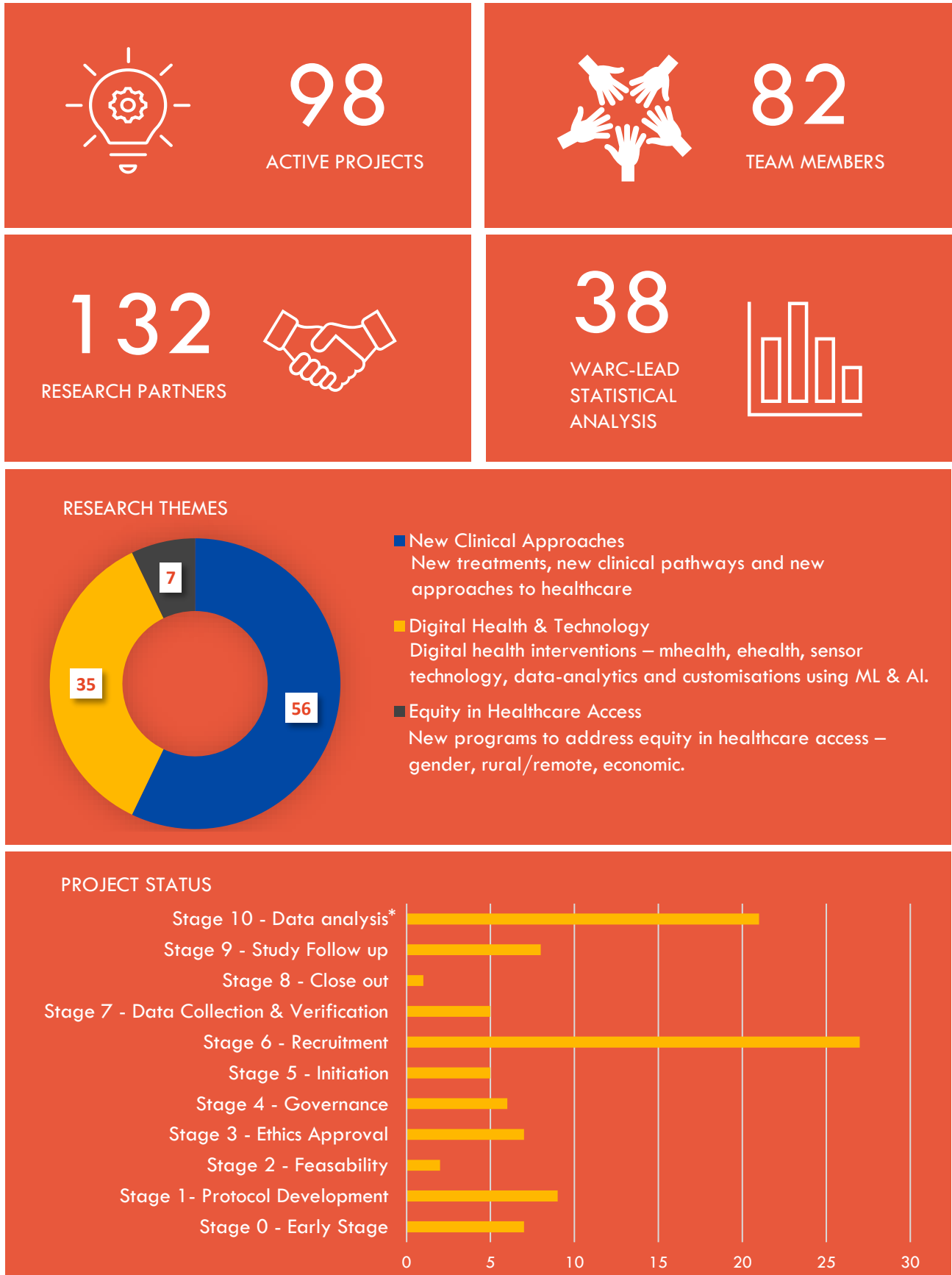
MEASURING OUR SUCCESS

Our key performance indicators (KPIs) have been agreed upon collaboratively to help us track our progress and benchmark against other research centres.

- 1 Publications – Impact, Field weighted IF, Citations, % International collabs, %Digital
- 2 Funding (Cat 1-4) and External Income – Number and value
- 3 Clinical research – No. of participants in clinical trials and qualitative research
- 4 Societal impact – Media (traditional & digital), social media, WARC website views
- 5 Partnerships – government, NGO, industry; local, national, international
- 6 Public policy engagement – active government and non-government
- 7 HDR students – Number, on-time completion, scholarships/ awards

WARC AT A GLANCE

Overview of WARC activities to date, up to 30 September 2022



Stage 10 – Data analysis includes data analysis only projects

OUR PERFORMANCE

1

PUBLICATIONS EXCELLENCE

We had **23 total publications** in Q3.

We are continuing to build our strength in digital health with nine (9) digital health-focused papers.

Four (4) were co-authored with international researchers which demonstrates our strong network of active research collaborations.

With ten publications ranked in journals SJR>1 is evidence of our high-quality research output.

23 TOTAL PUBLICATIONS



9

DIGITAL HEALTH PUBLICATIONS

10

SJR> 1 JOURNALS

4

INTERNATIONAL COLLABORATORS

2

FUNDING

Success across several different grant schemes shows our multidisciplinary strengths.

We are working closely with the University of Sydney Philanthropy team to build our expertise in this space. They came to present to the WARC leadership team in July 2022 with some helpful tools to develop these kinds of gifts.

We continue to apply for tenders and work with industry partners to cultivate consulting streams of funding.

Do you have an opportunity? Get in touch - Dr Marina Ali.

Professor Richard Lindley of the Westmead Applied Research Centre, Faculty of Medicine and Health has been awarded \$2.5m to lead a 'Centre of Research Excellence to Accelerate Stroke Trial Innovation and Translation' in collaboration with 12 universities and research institutions in Australia. Read more about Professor Lindley's Centre of Excellence on the University [website](#).



Professor Richard Lindley, WARC Principal Investigator

Dr Liliana Laranjo awarded the Sydney Health Partners' Medical Research Future Fund (MRFF) Rapid Applied Research Translation (RART) for \$35k

Dr Tu Nguyen was awarded the Sydney Heat and Health Research Incubator Collaborative Project Funding 2022 for \$20k. Dr Nguyen was also successfully awarded a Sydney Health Partners Geriatric Medicine Clinical Academic Group Early Career Researcher's Award of \$5k.

WARC Research Affiliate Dr Harry Klimis received a \$50k Michael G. DeGrootte Fellowship Award in Clinical Research at McMaster Uni. (Hamilton ON, Canada)

\$2.6m
GRANT
FUNDING



OUR PERFORMANCE

3 CLINICAL RESEARCH (ALL PROJECTS)

WARC is delivering high quality original research. **84 of our research projects are led by a WARC-affiliated principal investigator or research fellow.**

Clinical research undergoes extensive scientific review by Human Research Ethics Committees (HRECs) to ensure proposals involving human participants are ethically acceptable. **In Q3 we had seven (7) new research proposals approved by a HREC.**

Once approved by a HREC, research proposals undergo review by local governance committees to ensure standards for risk, safety and quality have been considered. **We had eight (8) new approvals completed in Q3 allowing new sites to start conducting research** for example recruiting patients.

We work with **132 active research partners**, requiring individual contracts to conduct research with these partners and at new sites for example recruiting patients from a hospital site or working with a new industry partner. **We executed 15 new contracts from July to September 2022.**

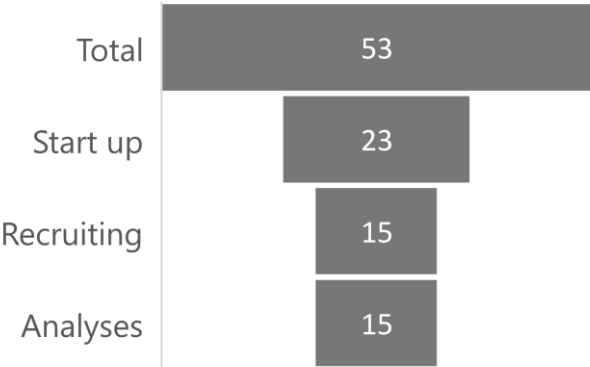
We recruited **28 participants into clinical trials**, and another **540 into other types research projects** like observational studies. In Q3 we also completed **46 follow up visits** with participants involved in our research projects.

568
NEW
PARTICIPANTS

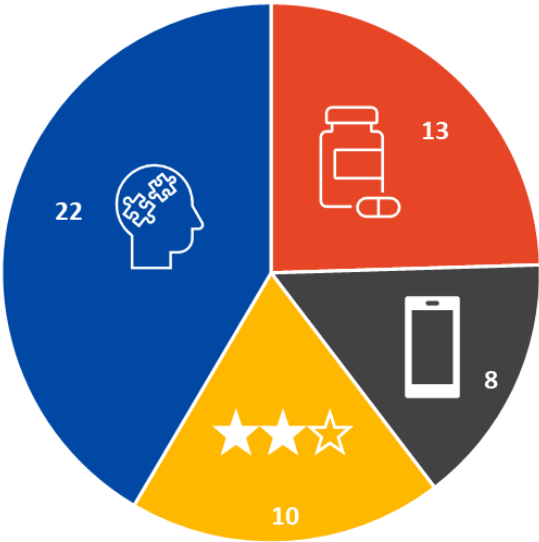
3 CLINICAL RESEARCH (CLINICAL TRIALS)

CLINICAL TRIALS
Our clinical trial studies test new treatments and evaluates their effects on human health outcomes.

From July to September 2022 WARC supported 53 clinical trials, more than half of WARC's 98 active projects.



These were made up of:
13 Drug Trials,
8 Device Trials,
10 Quality Improvement Trials
22 Behavioural Trials.



OUR PERFORMANCE

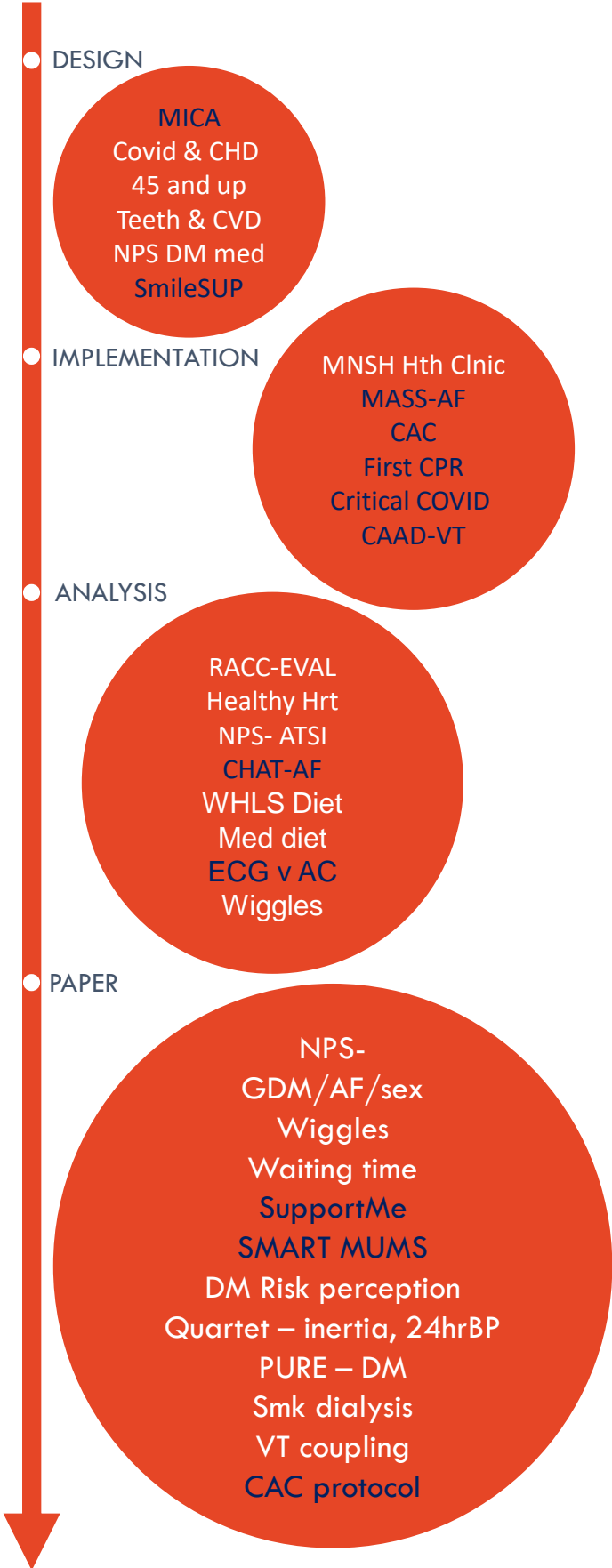
3 CLINICAL RESEARCH (STATISTICS)

The Statistics team leads the **analysis of 38 of WARCs active projects** as well as providing design consultations at the front end of the project development, support of statistical analysis plan (SAPs), and finally analysis reports. The team also routinely inputs into grant applications.

In Q3, Statistics led by Senior Biostatistician Simone Marschner and supported by Statistical Programmer Haeri Min. They **consulted on 18 projects** at the design phase, and delivered **three (3) analysis reports**.

HIGHLIGHTS

NPS abstract presentation: Wing-Lun, E. & Chow, Clara & Von Huben, Amy & Marschner, Simone & Kazi, Sanjay & Yue, J. & Trivedi, R. & Zaman, S. Differences in Aboriginal and Torres Strait Islander and Non-Indigenous People With Coronary Artery Disease: An Australia-Wide Analysis. Heart, Lung and Circulation. AUGUST 2022
FIRST CPR paper: Munot, Sonali & Bray, Janet & Bauman, Adrian & Rugel, Emily & Giordan, Leticia & Marschner, Simone & Chow, Clara & Redfern, Julie. (2022). Development of an intervention to facilitate dissemination of community-based training to respond to out-of-hospital cardiac arrest: FirstCPR. PLOS ONE. AUGUST 2022
Quartet paper: Nolde, Janis & Hillis, Graham & Atkins, Emily & Von Huben, Amy & Marschner, Simone & Chan, Justine & Reid, Christopher & Nelson, Mark & Figtree, Gemma & Chalmers, John & Usherwood, Tim & Rodgers, Anthony & Chow, Clara & Schlaich, Markus. Impact of various night-time period definitions on nocturnal ambulatory blood pressure. Journal of Hypertension. AUGUST 2022
RACC EVAL Statistical Report completed.



- Blue – Randomised Control Trial
- White – data analysis only

OUR PERFORMANCE

4 SOCIETAL IMPACT - MEDIA OUTREACH

We have three main channels to help us communicate all our great work to world.

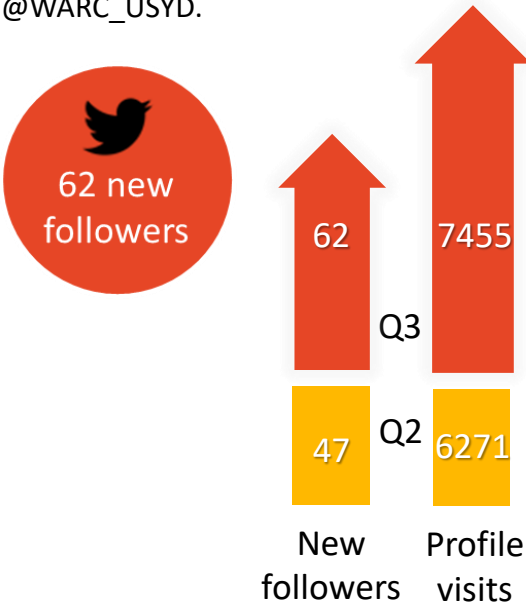
Website: Our website tells the public who we are, our mission and values.



LinkedIn: We launched our LinkedIn page in 2022 as another way to connect and collaborate, attract new partners, attract bright new students. We will continue to work on building this channel.



Twitter: This is a great way to connect with all the professional and social things the WARC team is getting up to. Follow us @WARC_USYD.



Our top tweet earned 3,598 impressions and top mention saw 105 unique engagements.

Top Tweet earned 3,598 impressions

In this systematic review, the substrate for VA in **#Brugada** wasn't just localised to the epicardial RVOT! Catheter ablation was safe and efficacious. See our work here: doi.org/10.1007/s00392...
#TeamVTWestmead
pic.twitter.com/owOGIWq4eB

Top mention earned 105 engagements

Huong Ly Tong (Ly)
@lytong22 · Aug 18

Our **#survey** found that people who used **#MobileApps** or **#fitness #trackers** during **#COVID19** were almost 2 times more likely to meet **#PhysicalActivity** guidelines. doi.org/10.1371/journa...
[@LilianaLaranjo](https://twitter.com/LilianaLaranjo) [@clara_chow](https://twitter.com/clara_chow)
[@ana_luisa_neves](https://twitter.com/ana_luisa_neves) [@DrKatePark](https://twitter.com/DrKatePark)
[@BenCRiordan](https://twitter.com/BenCRiordan) [@PLOSDigiHealth](https://twitter.com/PLOSDigiHealth)
[@WARC_USYD](https://twitter.com/WARC_USYD)

OUR PERFORMANCE

4

SOCIETAL IMPACT - MEDIA MENTIONS

World Heart Day - 29 September - gave the WARC team an opportunity to show the ground-breaking work being conducted in cardiovascular research. Check out Twitter to catchup @WARC_USYD.

You Retweeted



Huong Ly Tong (Ly)
@lytong22

Great video featuring [#cardiovascular](#) [#disease](#) [#research](#) from [@ritutrivedi_](#) [@SamiaKazi2](#) [@simoneMarschne1](#) [@WARC_USYD](#) 🙌🙌 [#WorldHeartDay](#)


 **Sydney Health**  @syd_health · 18h

It's #WorldHeartDay today! ❤️


We celebrate it to raise awareness about heart disease and stroke prevention. 📺

Today we also celebrate our cardiovascular researchers and their hard work! 🌟


👉 Watch the video to hear what inspired their research!



Simone Marschner
Senior Biostatistician and PhD Candidate
Westmead Applied Research Centre



Ritu Trivedi
PhD Candidate
Faculty of Medicine and Health



Samia Kazi
PhD Candidate
Faculty of Medicine and Health



The University of Sydney Westmead team make a human-shaped heart for World Heart Day

 **Western Sydney Health**  @WestSydHealth

WORLD HEART DAY | I can heartly believe it's been so long since you've seen your cardiologist!

We're catching up with Westmead Hospital cardiologist [@clara_chow](#) Here's her thoughts on the importance of frugal digital health innovation + research & she doesn't miss a beat:



178 views 0:06 / 1:52

3:59 PM · Sep 29, 2022 · Twitter Web App

 **Westmead Applied Research Centre #WARC_...** @WARC_U... · 21h

[#WARC_USYD](#) & [#syd_health](#) showing we're passionate about [#UseHeartForHumanity](#) on [#WorldHeartDay](#) "By getting involved with global events as well as local activities, we are empowered to spread awareness and help make a difference in the lives of all humankind." [@worldheartfed](#)



 **WORLD HEART DAY** 29 SEP

Samia Kazi

OUR PERFORMANCE

5 PARTNERSHIPS

Research cannot be delivered without collaboration. With **132 active research and delivery partners** we deliver more innovation, across more sites, to a broader, diverse patient population. Collaborations foster high impact, robust findings.

Our partners are 44 Government organisations, 21 non-government organisations and 18 industry partners. Of these 34 are international collaborators.

SPOTLIGHT ON DIGITAL HEALTH

35 of these partners in the Digital Health

Stream supporting us through funding, expertise and research collaboration. In Q3 the Digital Health team attended key conferences and networking events leading to engagement with **nine (9) new potential partnerships** and research collaborations.

6 PUBLIC POLICY ENGAGEMENT

In August 2022, the annual Cardiac Society of Australia and New Zealand (CSANZ) held their annual conference on the Gold Coast, Queensland. CSANZ is key the chief advocacy group for cardiology, supporting improved health outcomes and supporting cardiologists, researchers, scientists, cardiovascular nurses, allied health, and healthcare workers.

Our team regularly engages on public policy both nationally and internationally. Collectively we have delivered 12 presentations to influence and create impact in the scientific community.

Associate Professor Sarah Zaman and Dr Edwina Wing-Lun shared their work in oral presentations. Sonali Munot presented a poster at the conference.



Sonali Munot presenting poster at CSANZ as part of PhD research.

In Q3 the **Australian Stroke and Heart Research Accelerator (ASHRA) was launched** by Chair, Professor Clara Chow. The \$10m ASHRA is set to transform the field of cardiovascular research in Australia.

ASHRA currently supports two flagship digital health projects; PARTICIPATE (Partnering RemoTe monitoring of Implanted Cardiac devices with Intelligent PATient Engagement) with industry partner Biotronik and MICardiac (My Intelligent Cardiac Assistant).



Launch of ASHRA at the 2022 CSANZ Conference

OUR PERFORMANCE

7 HDR STUDENTS

WARC has an excellent track record of mentoring high-quality students. We currently have 27 Postgraduate students = 23 HDR (20 PhD & 3 MPhil), 3 MD and 1 Summer student. Six (6) PhD students are newly enrolled 2022. Eight (8) PhD and MD are expected to complete in 2022. Five (5) students have been awarded scholarships.

FEATURED STUDENT



Anushriya Pant, PhD student

Anushriya has a BMedSci (Hons) and is a current PhD student. Her thesis will explore the relationship between dietary intake, lifestyle habits, and female-specific risk factors with heart disease in Australian women. This research hopes to encourage changes to the diagnosis and management of heart disease for Australian women and highlight the need for personalised interventions consider sex, diet, and female-specific risk factors.

As a researcher, Anushriya endeavours to navigate women's health with focus on diet and cultural-sensitivity. Her key research interests include Indigenous health, healthy lifestyle practices, and primary preventative therapies.

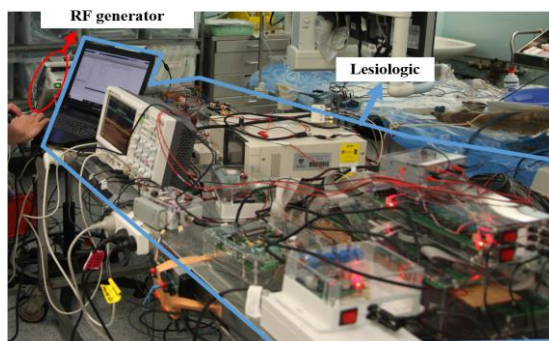
FEATURED PROJECT

LesioLogic: maximising efficiency of cardiac radiofrequency ablation
by Duc Minh Nguyen



Dr Duc Minh Nguyen

Duc is a biomedical researcher and an engineer from the Cardiology workshop, Westmead hospital. He has been working in the fields of medical instrumentation, signal processing, image processing and circuit designing for more than 13 years, and have been successfully developing products for Vietnamese hospitals from 2010-2016. Duc has been either a key member or a PI of 9 projects with total funding of \$1.9 million since 2010, notably the current Australian MRFF fund (\$1.1 million).



Lesiologic device. Image supplied by Dr Duc Minh Nguyen.

APPENDIX 1 - PUBLICATIONS

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- Figtree GA, Vernon ST, Hadziosmanovic N, Sundström J, Alfredsson J, Nicholls SJ, Chow CK, Psaltis P, Røsjø H, Leósdóttir M, Hagström E. Mortality and cardiovascular outcomes in patients presenting with non-ST elevation myocardial infarction despite no standard modifiable risk factors: results from the SWEDEHEART registry. *J Am Heart Assoc*. 2022 Aug 2;11(15):e024818. doi: 10.1161/JAHA.121.024818. Epub 2022 Jul 25. PMID: 35876409; PMCID: PMC9375489. [IF 6.106]
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