



CEO's Message

Welcome to the 2023/24 Summer Edition of Delivering the Future.

2023 marked an important period of renewed strategic direction and consolidation for the Women and Infants Research Foundation. In receiving prestigious awards and funding for new and important projects our researchers continue to be recognised as leaders in their fields.

The WIRF Board and I are very excited and pleased to announce that Dr Mei Lon Ng has joined our Board of Directors. Mei Lon is a distinguished general practitioner with more than 20 years' experience working in Western Australia. We welcome her to the WIRF Board and know that her experience and expertise, along with that of the other Board members, will guide our work for a better future for all women, babies and families.

A major highlight of the year was WIRF's 2023 Stars Scientific Symposium – a platform for both senior and early career researchers to showcase their new and innovative home-grown research programs that are positively impacting key areas of health for babies, women and their pregnancies.

This year we welcomed Stars' keynote speaker, Professor Caroline Homer AO from Melbourne's Burnet Institute, to discuss 'Turning the tide of caesarean sections: Are we too late? Does it matter?'

We took the opportunity at Stars to announce WIRF's 2023 Research Acceleration Awards recipients. More than \$200,000 in funding has been granted, to new Western Australian research projects in key areas of women's, maternal, and newborn health.

These include improving quality of care for First Nations mothers and infants, improving outcomes for NICU mothers and their babies, and women impacted by preeclampsia and endometriosis. These Awards will keep WA highly ranked in the world for advancing medical breakthroughs.

WIRF and Lyfe Languages were honoured to be named one of only ten finalists in The Challenge - the state government's global search for world-leading medical research and innovation solutions to improve health service delivery in the Pilbara.

The WIRF Board is indeed proud that the Foundation continues to expand and succeed while remaining loyal to the values and the collegiate approach it has espoused from day one. A focus on impact and staying in touch with the needs of stakeholders, commitment to curiosity and innovation, independence and integrity, all contribute significantly to the esteem in which the Foundation is held.

WIRF's past and future success is only made possible with the help, commitment and dedication of our supporters, staff, volunteers and partners. We are lucky to be supported by some exceptional people and businesses. For this we say thank you from the bottom of our hearts.

By backing WIRF, you're giving world-class researchers the tools they need for vital research programs and the ability to expand our positive impact for all women, mothers, babies and families across the country and internationally.

We hope you enjoy catching up on some of WIRF's recent news, highlights and events. On behalf of the WIRF team, thank you for your help, generosity, and ongoing commitment to WIRF.

We wish you all the very best for the Festive Season!

Warm regards,

Deb

Deb Attard Portughes
Chief Executive Officer

Scan to donate



P.S. If you are looking for a meaningful gift this Christmas, please consider WIRF's Christmas Appeal by supporting one of our donation options and make a positive difference to women and babies in need. Just use one of the QR codes in this newsletter or visit www.wirf.com.au. Thank you!





WIRF Chief Scientist, Prof Matt Kemp





WIRF's research stars shine bright

A chance to hear from some of Western Australia's leading researchers and clinicians attracted more than 130 health professionals, researchers and academics from across the state to the 2023 Stars Scientific Symposium.

Chaired by WIRF's Chief Scientist, Professor Matt Kemp, this year's Symposium showcased new and innovative home-grown research programs that are positively impacting key areas of health for babies, women and their pregnancies.

Visiting Professor, Prof Caroline Homer AO from Melbourne's Burnet Institute, headlined with her presentation, 'Turning the tide of caesarean sections: Are we too late? Does it matter?'.

Over the past two decades, rates of caesarean sections have been rising exponentially in all countries and across all income demographics. In many communities, caesarean section has very much become the norm.

Professor Homer challenged our thinking about caesarean sections – how best to offer it, use it, study it and defend or deny it. She also presented some of the evidence around caesarean section – the positive and negative benefits and impacts, the variability across the globe and Australia.

Senior Researchers: Clinical Assoc Prof Mary Sharp (King Edward Memorial Hospital), Dr Sarah Li (National University of Singapore) and Dr Joseph Carpini (University of Western Australia) all gave presentations on their latest research.

Assoc Prof Sharp reviewed the questions to be considered by parents and health care workers in decision making regarding what approach to take to care for the baby born in the previable period.

The use of Artificial Intelligence in the field of Obstetrics and Gynaecology, and how it can improve antenatal risk assessment, was explored by Dr Li. Dr Carpini unpacked a series of field and experimental studies in the healthcare context that highlighted the importance of teamwork and communication.

The Symposium began with a powerful consumer panel where panellists reflected on their own lived experiences of preterm birth. Presentations were made by some of WA's top emerging medical researchers – Jaime Thomas, Kaila Stevens. Erin Fee and Dr Haruo Usuda.

A major highlight of this year's Stars Symposium was the announcement of the successful recipients of WIRF's inaugural Research Acceleration Awards (story on page 9).

WIRF would like to thank all the speakers and delegates at this year's Stars Symposium for their support especially our valued sponsors: CERI, Pharmacy 777, Euroz Hartleys Foundation and the Eastcourt Foundation.

WIRF CEO appointed to WA health and medical research advisory panel

WIRF's CEO, Deb Portughes, has been appointed to the prestigious expert advisory panel which will guide WA's first Health and Medical Research Strategy.



Minister for Medical Research, the Hon Stephen Dawson MLC recently announced advisory panel members following the launch of a 10-year plan to grow Western Australia's health and medical research sector.

A conduit for the WA research sector to communicate with the WA Department of Health, the panel will advise and guide the Department on matters related to the implementation of the Strategy.

Understanding the true strength of collaboration, Ms Portughes is forever looking to foster new partnerships and build enduring relationships to connect business and philanthropy with the world of research to expand and maximise the impact of WIRF and Western Australian research.

The WA Health and Medical Research Strategy 2023-2033 aims to build WA's health workforce, grow partnerships and promote the State's health and medical research achievements, both at home and around the world.

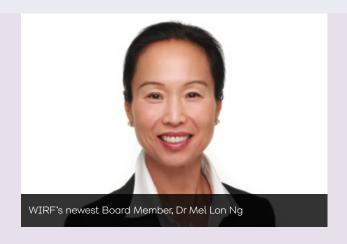
Dr Mei Lon Ng joins the WIRF Board

The Women and Infants Research Foundation is pleased to announce the appointment of Dr Mei Lon Ng to its Board of Directors.

A graduate of the University of Western Australia, she completed her Fellowship in General Practice in 2002. Since then, she has juggled raising three children whilst working part-time at two separate practices.

More recently, she has completed a Masters in Exercise Medicine with a subspecialty in oncology and cancer survivorship. Mei Lon's interest in cancer survivorship stems from her own diagnosis in 2015, and subsequent path to recovery and prevention of recurrence.

With a holistic view to medicine and healthcare, she encourages medical students (which she tutors) to look at the patient as a whole and not just the disease process.



"I strongly believe in looking after our health even when we are well, as prevention is always better than cure."

Through her role on the WIRF Board, Mei Lon is looking forward to helping WIRF spread their message about the importance of perinatal health and the impact of maternal health on paediatric outcomes.

"I'm extremely excited about spreading the incredible work of the Foundation and to work with the Board to enhance their strategic alliances with international research centres."

Chief Scientist's Message



The Women and Infants Research Foundation has a long history of working hard to deliver innovative solutions to the most pressing health challenges facing Western Australia's women, mothers and babies. I am very pleased to be able to report that, with your support, this hard work continues to pay dividends, both here at home, and in the national and international arenas.

Earlier this year, the Foundation issued an inaugural call for funding applications to its Research Acceleration Awards Scheme. The Awards were designed to provide much-needed grant funding to research projects addressing areas of urgent need in women's and newborn health. The Awards are also unique in ringfencing funding for graduate students working in women's and reproductive health disciplines, thus accelerating early-stage research efforts and helping to secure a pipeline of research talent for long-term community benefit.

A large number of applications were received from across the major health services and from all tertiary institutions in Western Australia. With the generous support of the Stan Perron Charitable Trust, the Bass Family Foundation, and a large number of private donors, the Foundation awarded over \$200,000.00 to seven outstanding research projects, the largest amount of grant funding awarded in a single year by the Foundation in its nearly 50-year history.

This achievement is reflective of both the depth of generosity in the WA community, and the very high standard of research that is undertaken by our clinician-scientists, researchers and students. Awardees were announced during this year's Stars Scientific Symposium. You may read more about the awardees, their work, and Stars in this issue of *Delivering the Future*.

In addition to its extensive work here at home, WIRF has a long history of leading high-impact research studies nationally, and internationally. In 2023 the Foundation celebrates the 15th year of its highly productive research collaboration with Tohoku University in Sendai, Japan. Initiated at the behest of Emeritus Professor Kunihiro Okamura (Department of Obstetrics and Gynaecology, Tohoku University Hospital), this collaboration with one of Japan's top universities has yielded over 100 collaborative research publications.

It has contributed over \$4 million of research funding to WA, educated five PhD students, and led to the pre-clinical development of the world's first artificial placenta platform capable for extremely preterm babies. To mark this auspicious anniversary, WIRF staff and supporters, local dignitaries, and a visiting Japanese delegation including senior leadership from Tohoku University and Nipro Corporation attended a reception hosted by WIRF's Joint Patrons, His Excellency the Honourable Chris Dawson AC APM, Governor of Western Australia, and Mrs Darrilyn Dawson, on the eve of World Prematurity Day.

The Foundation's collaboration with Tohoku University, and its contribution to perinatal research, is a salient example of the power and potential of committed individuals working towards a common cause. WIRF is extremely fortunate to count some truly remarkable, committed people amongst its staff, supporters and volunteers.

This issue of *Delivering the Future* spotlights two outstanding WIRF supporters, Prof Caroline Homer AO, 2023 Stars Visiting Professor, and Mrs Joanne Beedie, WIRF Scientific Committee member and a tireless advocate for preterm babies and their families. Their commitment to advancing the health of women, mothers and babies is inspirational, and is reflective of WIRF's own mission – research, education and service to ensure the very best start to life for babies, and the very best health for women across the life course. I know you will enjoy their stories as much as I have.

Thank you for reading, and, as always, for your generous support.

Professor Matt Kemp Chief Scientist

National collaborative update

Learning Session 3 of the Every Week Counts National Collaborative was met with excitement by over 60 participating maternity services across Australia.

More than 260 obstetricians, midwives, GPs, sonographers, neonatologists together with consumers and quality improvement experts from 63 Australian maternity hospitals gathered in Brisbane to progress their shared work to safely prevent preterm birth and its far-reaching health impacts.

The two-day seminar featured interactive activities and presentations with highlights including: implementation of a midwifery continuity model of care for women having a First Nations baby, team presentations of their storyboards to share their learning, a deep dive into the collaborative strategies and the improvement methodology that will help them to achieve their aims.

Breakout sessions on topics such as cervical length measurement, the importance of continuity of care, care pathway for women with



high-risk pregnancies, and smoking cessation strategies for pregnant women were also very well received.

Through a Commonwealth grant awarded to WIRF, the Every Week Counts National Preterm Birth Prevention Collaborative is supporting 63 Australian maternity hospitals to work together over the next 12 months to safely lower their rate of preterm and early term birth by at least 20%.

Top research midwife honoured at WA Nursing & Midwifery Excellence Awards

WIRF extends a huge congratulations to Dr Zoe Bradfield who was awarded the 2023 Excellence in Research Award at the recent WA Nursing and Midwifery Excellence Awards.

In addition to sitting on WIRF's Scientific Committee, Dr Bradfield is Senior Research Fellow at Curtin University and holds a joint appointment as WA's only Senior Midwifery Research Fellow at the Women and Newborn Health Service.



Working as a nurse and midwife across a variety of rural and metropolitan settings fuelled her passion for developing excellence in the next generation of health practitioners; and leading innovative, translational research that contributes to better outcomes for women, their families and society.

Congratulations Zoe and thank you for all that you do!

Lyfe Languages among new healthcare tech trialled in the Pilbara





An innovative program that pairs the world's oldest continuous culture with the world's newest technologies is helping to close the gap for First Nations patients.

Earlier this year, WIRF partnered with the Lyfe Languages program to submit an application to the Western Australian Government's \$5 million Global Challenge calling for world-leading medical research and innovation solutions to improve health service delivery in the Pilbara.

In July 2023, WIRF and Lyfe Languages were named as one of ten finalists.

Lyfe Languages connects communities and generations to improve health outcomes by translating medical terms into traditional languages making it easier for remote First Nations people to get the healthcare they need.

As technology continues to improve health and lifestyle outcomes for the wider community, we need to make sure that innovation is equitable. We must not widen the gap. With Lyfe Languages we can close the healthcare communication gap to prevent suffering and death. In fact, the opportunity is to leapfrog the gap.

Lyfe Languages Founders, Dr Gareth Baynam and Yarlalu Thomas see this program as a critical conduit to transfer wisdom across generations and create new knowledge - connecting First Nations youth through to their elders, so that together they are the architects of change, creating a network of Indigenous change makers.

This network is partnered to doctors, nurses, and other care providers to shift the dial for healthcare. In turn this is partnered with the newest technologies such as artificial intelligence, neural networks and genomics.

The Challenge's ten finalists were chosen following two stages of judging from experts and stakeholders on the ground in the North West. In August, all finalists presented their ideas to key stakeholders and representatives of the Pilbara community in Karratha.

WIRF would like to thank the Minister for Medical Research, the Hon Stephen Dawson MLC, the Western Australian Government, the judges and key stakeholders, BHP Group Limited, Rio Tinto and the Future Health Research and Innovation Fund, for their help and commitment to a better WA.

Each of the ten finalists has been awarded \$200,000 to imbed their concept in the Pilbara for 12 months to prove it works. The finalists will partner with key health stakeholders in the region, to help them understand the unique landscape, population, and local health needs, and develop culturally appropriate applications.

Watch WIRF's successful Lyfe Languages video submission here.



Turning the tide of caesarean sections: Are we too late? Does it matter?

It was a pleasure to speak at WIRF's recent 2023 Stars Scientific Symposium on caesarean section.

Caesarean section is the most common surgical procedure globally. In the past two decades, the rates have been rising exponentially, especially among richer communities, in all countries including low-and-middle income countries. In many communities, caesarean section is the norm and women say they do not know anyone who has had a normal birth, further supporting the normality of intervention.

The World Health Organization's (WHO) Statement on Caesarean Section ^[1] highlights a number of reasons for the increase including a belief that caesarean section will reduce pain; it is convenient to be able to schedule the birth or to be able to choose a certain date; and, because caesarean section can be perceived as being less traumatic for the mother and baby. Clinicians in many countries struggle with the process of decision making especially in highly defensive contexts. It is very hard to deny a caesarean section when the fear of possible litigation later could be high.

In Australia, there is significant variation across the country in rates of caesarean section although it is rising in all states and territories^[2]. The rate of women giving birth by caesarean section has increased from 32% in 2011 to 38% in 2021 and is very likely to reach 45-50% by 2030. Whenever the topic is mentioned in the media it creates a firestorm – it seems everyone has an opinion and they are usually polarised and emotive. This division goes some way to explaining why variation in caesarean section rates around the country are one of the key maternity indicators of the Australian Atlas in Healthcare Variation Report ^[3].

Despite being a relatively safe operation, caesarean section does carry short and long term risks for the mother



and baby, and these carry into the next pregnancy [4]. There are also health system cost issues and increasingly, concerns about the increased carbon footprint from caesarean section [5].

My presentation raised a number of issues including the under-use and over-use of caesarean section, the impact of this on women's experiences – both positive and negative, and questioned why we still seem unable to deliver interventions that are likely to reduce the rate including midwifery continuity of care, one-to-one care and support in labour, respect for choices in birth position, immersion in water, enabling vaginal birth after caesarean section and supporting vaginal breech birth.

The caesarean section rate in Australia is way above what WHO says would be ideal. Are we really improving outcomes for these extra women? The evidence says for some maybe, but for most, possibly not. We also need to consider that we may be causing harm. My presentation called for a national conversation about where we want to be in 2030 and what steps we can do now to ensure that every woman and baby has the most optional birth and a positive experience of care.

Professor Caroline Homer AO

Co-Program Director, Maternal and Child Health at the Burnet Institute in Melbourne.

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Inaugural WIRF Research Acceleration Awards

More than \$200,000 to support new Western Australian research in women's, maternal and newborn health.



The Research Acceleration Awards will accelerate early-stage research and help to secure a pipeline of research talent for long-term community benefit.

Building on a proud history of supporting Western Australia's top emerging medical researchers, WIRF's 2023 Awards represent the highest level of direct grant support made by the Foundation for almost 50 years.

The successful recipients of WIRF's inaugural Research Acceleration Awards are:

- Dr Jayne Kotz (Murdoch University) Improving quality of care and outcomes for
 Aboriginal mothers and infants: A
 Continuous Cultural Quality Improvement
 Program
- Prof Peter Gething (Telethon Kids Institute) -A two-generation approach to a twogeneration problem: Using predictive analytics to improve Transition of Care

- Prof Luke Haseler (Curtin University) -Isometric handgrip echocardiography for detection of early diastolic dysfunction in women after preeclampsia
- Laurene Aydon (Department of Health) Establishing reliability, usability, and validity
 of the mother-to-infant bonding scale in a
 neonatal intensive care unit
- Dr Mark Fear (Fiona Wood Foundation)
 Integrated analysis of local and systemic metabolic and immune changes in endometriosis
- Kristina Magoutas (University of Western Australia) - Dietary Impacts on the Seminal Microbiome.

Made possible with the generous support of many West Australians, the Stan Perron Charitable Foundation, and the Bass Family Foundation, these Awards have been designed to facilitate innovative projects from research to real-world impact and will keep WA among the best in the world for advancing medical breakthroughs.

Spotlight on: Joanne Beedie

Drawing upon her own personal lived experience as a mum of an extremely preterm son and surviving twin, Joanne Beedie is a dedicated consumer advocate within the space of preterm birth and the neonatal journey.



After the loss of a child at 21 weeks and giving birth to his identical twin at 27 weeks, Joanne saw a need to empower and enable families, by providing a practical support network and advocacy.

Joanne's personal trauma inspired her to cofound the charity Helping Little Hands.

Helping Little Hands provides a range of services, including travel support, a meals program, parent facilities and medical equipment - removing some of the financial stress to enable thousands of Perth families impacted by a premature birth to concentrate on bonding with their fragile newborns.

In recognition of her dedication and passion in supporting thousands of Western Australian families with premature and sick babies, she was recently awarded the prestigious John Curtin Medal.

She is a member of the Family Integrated Care Implementation Committee at both King Edward Memorial Hospital and Perth Children's Hospital. Through this work Joanne has helped drive cultural and operational change in the care programs of these hospitals, delivering better medical outcomes and parental empowerment.

Joanne explains that the aim is to allow the parents to concentrate on caring for their babies, themselves and their families.

"By allowing families to focus on their babies, we support emotional bonding and better mental health. Families can feel supported during one of the most challenging times they can face."

At WIRF's 2023 Stars Scientific Symposium, Joanne facilitated a panel of parents with a lived experience of preterm birth.

"I've been involved with WIRF for some time now. The work they do is amazing and I love being able to contribute my perspective as someone with 'lived experience' in the space of preterm birth," she explained.

"Stars was a wonderful experience but more than that, it reflected to me a shift away from hearing parent's voices as simply just 'lived experience stories' and being 'just a parent'.

"When you use any experience you have gained either professionally or personally, you develop knowledge, perspective and insight. When applied in the right context, this can lead to influence and impact."

WIRF is proud to have Joanne sit on its Scientific Committee as the lead consumer representative.

WA Charity Direct boost for Western Australian babies

Western Australian babies born in need of essential clothing and blankets are to benefit from a new donation from WA Charity Direct which will make an immediate and lasting impact to hundreds of families around the state.

The birth of a baby is a time of joy and celebration, but for many mothers and families it can also be a difficult time. WIRF's Baby Bundles offer support and keepsakes at the most critical time for a family unit.

The Baby Bundles program exists to support WA families in need by providing essential babywear and blankets for those who are born preterm, in an emergency, or to mothers in desperate situations.

The WA Charity Direct donation will enable more than 330 Baby Bundles to be created and gifted to Western Australian families in real need.

One of WIRF's Baby Bundles costs only \$28 which covers the cost of materials while WIRF's team of volunteers do the rest, giving their time and talents in knitting and sewing the beautiful babywear and blankets.

If you would like to support WIRF's Baby Bundles program please visit: www.wirf.com.au/ BabyBundles_CarePackages



Record \$77.4 million raised for Telethon



The spirit of giving reached dizzying new heights at this year's Telethon, with people from all over the State opening their hearts – and wallets – to raise more than \$77.4 million for sick kids.

Last year WIRF was honoured to receive funding support for several research projects from the Channel 7 Telethon Trust.

These studies focussed on improving the health and outcomes of WA neonates and infants from pregnancy to childhood and to better train and equip our healthcare workforce.

As a beneficiary, WIRF was included in the Telethon Charity Trail at RAC Arena along with many other WA charities. Visitors to the WIRF stall took the opportunity to talk with our researchers about their Telethon-funded research and programs as their children enjoyed a number of interactive activities and walked away with a few give aways.

WIRF congratulates everyone involved in achieving a remarkable 2023 Telethon and thanks the Channel 7 Telethon Trust for its continued support.



Women give us the precious gift of life. We are dedicated to giving them and their families the healthiest possible future.

WIRF is one of Australia's leading medical research institutes pioneering a new era of preventative medicine, solving problems at the earliest stages before they start. Our world-class research and public healthcare programs are focused on the most critical issues impacting women, infants and pregnancy:

- the prevention of preterm birth
- gynaecological cancers
- women's mental health
- development of an Artificial Womb

Together with our partners and supporters, we have the opportunity to fundamentally improve

maternal-fetal medicine, and significantly advance women's healthcare. We hope you feel as proud as we do about what you are helping us to achieve on behalf of all women, mothers and their babies.

We ask you to please continue your support of WIRF so we can deliver the healthiest possible future for all Australian families.

Regular giving

By setting up a regular gift to WIRF you can help make an ongoing difference to the lives of women, infants and families across Australia. To set up your monthly donation go to: <u>wirf.com.au/donate</u>



Please scan QR code to donate

THANK YOU FOR YOUR SUPPORT

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