



**WESFARMERS**  
**CENTRE OF VACCINES  
& INFECTIOUS DISEASES**



# PARTNERSHIP REPORT

December 2024

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# Acknowledgement of Country

We acknowledge Aboriginal and/or Torres Strait Islander peoples as the Traditional Custodians of the land and waters of Australia. We acknowledge their Elders past, present and emerging, their people and their land. We seek their wisdom in our work to improve the health and wellbeing and development of all children.

Further, we prioritise partnerships with Aboriginal families and communities across Western Australia and beyond to improve the health and development of their children. We will not ignore, nor accept, the continued disparity in outcomes for Aboriginal kids compared with other Australian children.



# Introduction

Celebrating our 10-year anniversary last year gave us a moment to pause and reflect on the significant impacts achieved since the inception of the Wesfarmers Centre in 2013. It also gave us an occasion to come together, to identify opportunities and focus our attention on the ongoing gaps in knowledge and drive improvements in health through changes in practice and policy. In 2024, we have risen to this challenge, pushing ourselves further to realise our vision: *to reduce the impact of infectious diseases through excellent and innovative research, partnerships with families and communities, translation and advocacy.*

## Key milestones to celebrate include:

- The introduction of Australia's first respiratory syncytial virus (RSV) prevention program using Nirsevimab, a long-acting monoclonal antibody available to all Western Australian babies. By leading early clinical trials, using big data alongside community surveys to inform program design, hosting community conversations and evaluating the roll-out in real time, the Centre's researchers played an integral role in the success of the program.
- The completion of the STOP (See, Treat, Prevent) Trial, which demonstrated school-based screening, referral and treatment of skin infections in Aboriginal communities in the Kimberley could decrease the overall burden by 50 per cent. This will significantly reduce the pain and irritation of skin infections for these children and lower their risk of severe complications.
- We are following the exciting progress of the Spritz-OM and Blitz-OM programs, as they seek to develop a novel prevention and treatment strategy to ensure healthy ears and successful grommet surgeries for our youngest children.

These are just a taste of the many milestones achieved throughout 2024!

We are excited to work more closely with Naomi Flutter in her new role as Board Chair for The Kids Research Institute Australia. With her in-depth knowledge of the Wesfarmers Centre, we welcome the opportunity for further growth in our key relationships with Wesfarmers Ltd and the broader Wesfarmers community.

As we look to 2025, we have plenty of work to do – whether this be increases in key vaccine-preventable diseases such as whooping cough, emerging vaccine hesitancy, the rise of antimicrobial resistance or the ever present risk of future pandemics. As always, we remain focused on reducing the burden of infectious disease and enabling families to thrive.

Again, I extend my heartfelt gratitude to everyone who has been a part of our journey – Wesfarmers Ltd, our researchers, funders and partners, patients, community members and supporters. Your contributions continue to shape our success.

**Professor Chris Blyth**

*Head of the Wesfarmers Centre of Vaccines and Infectious Diseases*



# Highlights



**144**  
research papers  
published



**\$240,000**  
awarded for larger  
Catalyst Grant  
research projects



PCH Ear  
Portal Study  
completed  
involving  
**228**  
kids



**\$20 million +**  
received in  
external research  
grants



**\$33,891**  
spent on sharing research  
at global/national  
conferences



**24,000**  
WA babies  
were protected against  
RSV in Australia's  
first ever  
**\$11M immunisation**  
program



**\$274,203**  
awarded to  
seed funding  
for high quality research

**1000+ kids**  
recruited into the  
REVIVE Study  
evaluating the impact  
of RSV and Nirsevimab



**9,996**  
text messages  
sent in the  
AuTOMATIC  
vaccine  
reminder study



**Over  
10,000**  
agar plates used to  
grow and measure  
Strep A bacteria



**89**  
Aboriginal  
children  
have received  
**FREE ear, nose  
and throat surgeries**  
since the  
commencement of the  
Djaalinj Waakinj  
Ear Health Program



Rates of skin infections  
reduced by  
**50%**  
in the SToP Trial

**45,000km**  
travelled

to complete

**81**  
community  
visits and

**3084**  
skin checks



**1529**  
babies  
in the  
COSI-2 Trial  
evaluating the  
impact of coconut oil  
for sepsis prevention  
in neonates



**166 kids** taking part  
in the  
OMinWA Study assessing the  
microbiology of otitis media in children



# Reducing the burden of childhood infections

*We are continually advancing our bench to bedside, pathogen to policy approach to prevent and reduce the impact of infections in children and families*



## Reduce vaccine preventable diseases, preventing hospitalisation and morbidity

- More than two decades of research, modelling and collaboration to develop safe and effective RSV immunisations has led to a major Federal Government roll-out of a respiratory syncytial virus (RSV) immunisation program for all pregnant women and newborn babies in 2025. Launched by Health and Aged Care Minister Mark Butler, the \$174.5 million investment will keep 10,000 babies out of hospital each year and follows the success of WA's state program. This remarkable result was made possible by:
  - ③ Involvement in global clinical trials that formed part of the licencing of the immunisations used in the new national program - Nirsevimab for babies and Abrysvo for pregnant mothers. These studies successfully demonstrated high efficacy in preventing severity of cases and hospital admissions for babies with RSV.
  - ③ Epidemiology research demonstrating figures such as the true RSV hospitalisation rates and the percentage of parents that would accept infant RSV immunisation. These research outputs were part of the primary evidence WA Health used to inform the \$11 million investment in the WA RSV immunisation program for young babies in 2024. Over 24,000 WA babies received immunisations with Nirsevimab throughout winter this year, accounting for 85 per cent of eligible infants.
- A multidisciplinary program called STAMP RSV began in 2024 thanks to \$2.475 million in external funding. STAMP RSV will focus on surveillance, transmission, attitudes, modelling and policy around RSV. One of the projects funded by STAMP RSV, the REVIVE Project, investigated RSV and control cases across admissions at Perth Children's Hospital, Fiona Stanley Hospital and Joondalup Health to demonstrate the effectiveness of WA's RSV immunisation program. The results showed that the RSV immunisation was 85.9 per cent effective in protecting newborns and young babies who were immunised

ahead of their first winter season - the first evidence of its kind in the Southern Hemisphere.

- Data around the burden of laboratory-proven RSV in adults has also been collected to inform development and implementation of RSV vaccines for older Australians.
- Research in collaboration with the National Centre of Immunisation Research and Surveillance has demonstrated the impact of the 2018 changes to the national pneumococcal immunisation schedule for young children. It was found that breakthrough infections were significantly less common, and the observed rate of invasive pneumococcal infection following the schedule change was 50 per cent less for the bacterial types covered by the vaccine.
- Data from a project completed in 2022 looking at the effectiveness of pneumococcal vaccine in children in Papua New Guinea (PNG) has been used to develop new strategies to easily identify children with severe pneumonia presenting to hospital. Researchers are now working closely with doctors in PNG to ensure these strategies are incorporated in the national health guidelines.





## Develop, trial and evaluate new infection prevention and treatment strategies

- A world-first nasal spray vaccine to prevent childhood ear infections is one step closer thanks to \$1 million in funding to advance to manufacturing clinical-grade product for use in clinical trials. Throughout 2024, patents for **Spritz-OM** were granted in the USA and Australia. The Spritz-OM team are now fundraising and formalising key partnerships ahead of the first-in-human clinical trials in 2025.
- Recruitment has been completed for the **ATOMIC Ears Study**, with 125 children recruited over a four-year period. The two-year follow-up is underway, with researchers hoping to learn if ear drops containing Dornase-alfa – a medicine commonly used in cystic fibrosis treatment – are effective in breaking down the ‘glue’ in the ear and preventing the recurrence of ear infections among children following grommet surgery.

The project team, titled Blitz-OM, secured \$875,000 in funding, are working with CSIRO, and can now move to the next stage of establishing potential manufacturing partners to further understand the path to market for pharmaceuticals.

- The **Australian Strep A Vaccine Initiative (ASAVI)** has expanded their potential vaccine portfolio to five candidates from three different developers, and negotiations for agreements are in progress. The team are working on establishing a central Strep A laboratory and have gained formal accreditation by the National Association of Testing Authorities. ASAVI is now qualified to conduct serology testing on site to industry standard to support clinical trials and other research studies.
- The RSV Protect Study evaluated an antibody treatment called Clesrovimab to understand its protective benefits for babies at high risk of severe RSV infections. After following babies born pre-term for over two years, the results demonstrated that Clesrovimab significantly reduced the incidence of RSV disease and hospitalisation in healthy pre-term and full-term infants.
- We look forward to the results of the Phase 3 **CMVictory Study** after analysis is completed at the end of this year. This study aims to learn more about the safety and effectiveness of a potential cytomegalovirus (CMV) vaccine, which would protect future generations from the potential birth defects caused by CMV.
- We are leading the WA arm of **MOTIVATE C**, an Australia-wide clinical trial evaluating the use of financial incentives to increase uptake of hepatitis C antiviral therapies in primary care. Led by the University of Sydney, 590 people living with chronic hepatitis C have been recruited. This research aims to help eliminate hepatitis C in Australia by 2030.

- The Kids Research Institute Australia Director, Professor Jonathan Carapetis, delivered this year’s keynote speech at the Annual Governor’s Lecture . Titled [‘Not just a sore throat: The race to stop one of the deadliest bugs on the planet’](#), his presentation outlined the full circle approach the Wesfarmers Centre is taking to addressing the severe impacts of Strep A infection.



- Recruitment is now complete for the [COSI-2 Trial](#), a world-first, multi-centre trial being led in Perth to evaluate whether coconut oil for skin care in preterm babies can prevent sepsis. A total of 1569 premature babies were recruited across 17 sites in Australia and New Zealand, with results expected by early 2026.
- The benefits of using coconut oil for a range of different conditions is being explored across three 'COCOKIDS' pilot studies at Perth Children's Hospital. These focus on:
  - Oral mucositis** - determining the feasibility of coconut oil administration as a mouth wash in paediatric cancer patients.
  - Eczema** - investigating whether coconut oil is safe and effective for use in children with eczema and the effect of coconut oil's antimicrobial properties on the skin microbiome.
  - Burns** - demonstrating the feasibility and effects of coconut oil for healing burn wounds and the restoration of the skin microbiome.
- We are collaborating with Papua New Guinea (PNG) Institute of Medical Research and National PNG Medical Research committees to investigate school-based screening for otitis media and hearing loss in the Eastern Highlands of PNG. The team are currently working with investigators from PNG to establish a community advisory group designed to guide the project from inception through to dissemination of results in the community.
- The [AUTOMATIC](#) text message reminder trial to improve vaccination coverage has completed enrolment with 9,996

randomised messages. The results, set to be published in December 2024, will be used to inform strategies for childhood vaccination reminders in GP clinics across Australia.

- The [BEAT-CF](#) Trial has been running for four years and has 985 participants across 11 sites nationwide. Treatment of cystic fibrosis (CF) has changed significantly over this period due to the wider availability of cystic fibrosis transmembrane regulator (CFTR) modulator therapy. The established BEAT-CF platform has enabled capture of data to evaluate the impact of these new drugs on outcomes for people living with CF, and is expected to enhance our understanding of CF progression and treatment responses.
- We have continued recruitment for the world-first SNAP Trial aiming to improve the treatment of *Staphylococcus aureus* blood stream infection. In addition, we are participating in a one-year study evaluating the use of an imaging device to detect blood clots in children with these infections and improve outcomes for children at high risk of clots.
- Over the past five years we have been conducting studies around vaccine effectiveness for rotavirus. Despite the introduction of rotavirus vaccines, reduced vaccine effectiveness is observed in low- and middle-income countries and amongst remote-living Aboriginal children. We are now completing ORVAC Stage 2 to evaluate if improved immune response corresponds to improved clinical protection against severe gastroenteritis, and if a third scheduled dose of oral rotavirus vaccine is effective. There are 871 participants enrolled in Stage 2, with initial results identifying that a 3-dose vaccine schedule in children at high risk of rotavirus infection resulted in higher antibody responses compared to the current 2-dose schedule.



## Enhance sepsis recognition and treatment to improve childhood outcomes

- Our researchers are leading the international [PROTECT Trial](#) to establish if treatment with a medication called pentoxifylline can reduce inflammation and improve survival outcomes for preterm infants with sepsis. Over the past eight years, 1200 babies have participated across 24 centres worldwide, with recruitment set to be completed at the end of this year.
- We are collaborating with Path West, Fiona Stanley Hospital and King Edward Memorial Hospital as part of a study investigating a new combined molecular microbiology and metabolomics test for sepsis. This research will involve 300 adults and 120 pre-term babies and is on track to be completed by mid-2025. Early results are showing great promise, and we have been awarded funding to translate this protocol into a commercial diagnostics test in partnership with a Perth-based company, SynGenesis. Further progress is also being made on an innovation project using our existing biomarker discoveries in neonatal sepsis to develop point of care tests for sepsis blood samples.
- In partnership with Perth Children's Hospital, we are leading sepsis recognition programs that have decreased the time between presentation and antibiotic therapy by 50 per cent in severe sepsis.
- We established an advisory committee, Sepsis WA, to grow a diverse, multidisciplinary, community driven state-wide sepsis network to support sepsis discovery, translation, and implementation research for all sepsis patients in WA.





## Aboriginal health: ensuring equity and reducing health disadvantage

*We commit to ensuring that our research occurs in partnership with community and is guided by a strong Aboriginal voice*



### Prevent ear, skin, and lung disease, improving short and long-term outcomes

- The Djaalinj Waakinj Urban Aboriginal Ear Health Program continues to go from strength-to-strength, helping researchers understand the prevalence of otitis media and hearing loss in Aboriginal children living in Perth while ensuring kids receive timely access to treatment. Since the program commenced in 2019, 89 Aboriginal children have received free ear, nose and throat surgery, with an additional 6 children scheduled over the next few months. **Key outcomes throughout 2024 include:**



**176**  
assessments  
at  
**28**  
clinics



**103**  
children referred to Ear, Nose and Throat specialists in partnership with

- Cockburn Integrated Health
- St John of God Murdoch
- and Moorditj Koort Aboriginal Corporation



**30**  
kids referred to  
speech  
pathology

- Re-commencement of clinics in the Armadale area following feedback from the Djaalinj Waakinj Aboriginal Community Advisory Group. In addition, the team have commenced clinics at South Coastal Babbinger Mia in Rockingham.
- The Healthy Ears Study, which uses a health promotion intervention to help resolve otitis media for children on long waiting lists for specialist treatment, has now started recruitment at the Djaalinj Waakinj clinics.
- Findings from the OMinWA Study identifying the current microbiology of otitis media in Aboriginal and non-Aboriginal children have been presented locally to community and consumer reference groups and nationally at **OMOZ 2024**. It was identified that the main pathogen causing ear infections has not changed in over 15 years. This knowledge provides important evidence to advocate for improved preventative therapies and will help inform vaccine development and policy.
- Seed funding provided by the Wesfarmers Centre has supported a unique study pursuing scientific evidence for the Noongar practice of using breastmilk to treat ear infections. The Moorditj Bibi Study, conducted in partnership with Aboriginal investigators and an Aurora student intern, involved testing breastmilk samples in our laboratory models of ear disease. Initial findings will soon be communicated and a strategy developed to continue this community driven study.





- The results of the [SToP Trial](#) demonstrate that the burden of skin sores decreased by 50 per cent for Aboriginal children living in remote communities throughout the study period. Conducted in close partnership with nine Aboriginal communities in Western Australia's Kimberley region, the five-year study set out to identify the best possible methods to See, Treat and Prevent painful skin sores and scabies. These results will now provide the evidence to inform healthy skin resources, guidelines, and policy throughout Australia. Ultimately, we aim to equip communities with the knowledge, tools, and new medicines to effectively treat skin infections, and address the environmental health issues that contribute to recurrent infections.



## Prevent rheumatic heart disease, saving lives and closing the gap

- Researchers working on rheumatic heart disease (RHD) prevention across the Pacific region have been awarded \$5 million by the Federal Government. The funding will support a partnership with The University of Western Australia, Pacific Governments and other experts over the next four years to establish the foundations of an effective, sustainable and equitable response to RHD in the Pacific.
- A new, five-year research program is underway to address the burden of RHD in Aboriginal and Torres Strait Islander communities. This work hopes to highlight how improved housing affects Strep A incidence, improve the understanding of RHD through a new system of disease staging and increase widespread use of less painful treatments in clinical settings.
- The [Sore Throat Study](#) focusing on Strep A pharyngitis surveillance in Perth and Melbourne has been completed. They enrolled 555 children into the study, which involved parents collecting samples to establish baseline data around the number of sore throats caused by Strep A bacteria. Over 70 per cent of the current participants have re-consented to an additional 12-month follow-up study, which hopes to improve accuracy of incidence after the COVID-19 pandemic and evaluate new potential sampling methods that could eliminate the requirement of blood sampling to determine antibody responses. An Aboriginal arm of the Sore Throat Study also commenced in October this year in partnership with the Derbarl Yerrigan Health Service. Researchers hope to enrol 100 existing Derbarl Yerrigan patients aged three to 14.



- Significant progress has been made on research for subcutaneous injection of benzathine penicillin G, also known as SCIP, as a less painful and longer-lasting treatment for RHD. Updates on the three arms of SCIP include:
  - ① Two Australian research sites have been identified, one in Western Australia and one in the Northern Territory, with recruitment due to begin in 2025.
  - ② 80 patients are participating in SCIP in New Zealand, with results showing the injections to be safe, tolerable and far less painful than traditional intra-muscular injections.
  - ③ A new arm of SCIP focusing on syphilis treatment has received ethics approval for an urban WA site to begin recruitment in 2025. This work could have a major flow-on effect for protecting babies at risk of syphilis from their infected mother.
- A collaboration with researchers in the United Kingdom is allowing us to investigate samples from people from The Gambia who exhibit natural protection against Strep A infection. This will help to identify the antibodies that are responsible for this protection and provide further knowledge around RHD prevention.
- The Immunity to Streptococcus pyogenes Network - iSpy-Net - launched in 2024, comprising of 28 investigators from 11 different countries across the globe. Through a number of studies in schools, researchers aim to investigate how immunity to Strep A develops in children after they naturally acquire infections over time.
- A Group A Strep Pathogenesis and Diagnostics Team Community Reference Group (GASP-CRG) has been established to allow individuals with lived experience of Strep A infections to guide researchers on the priority areas for upcoming research.



## Ensure all research occurs in partnership with community and is guided by a strong Aboriginal voice



15

Aboriginal staff and community members attended conferences, including

14 presentations



\$10,260

spent on Aboriginal capacity building



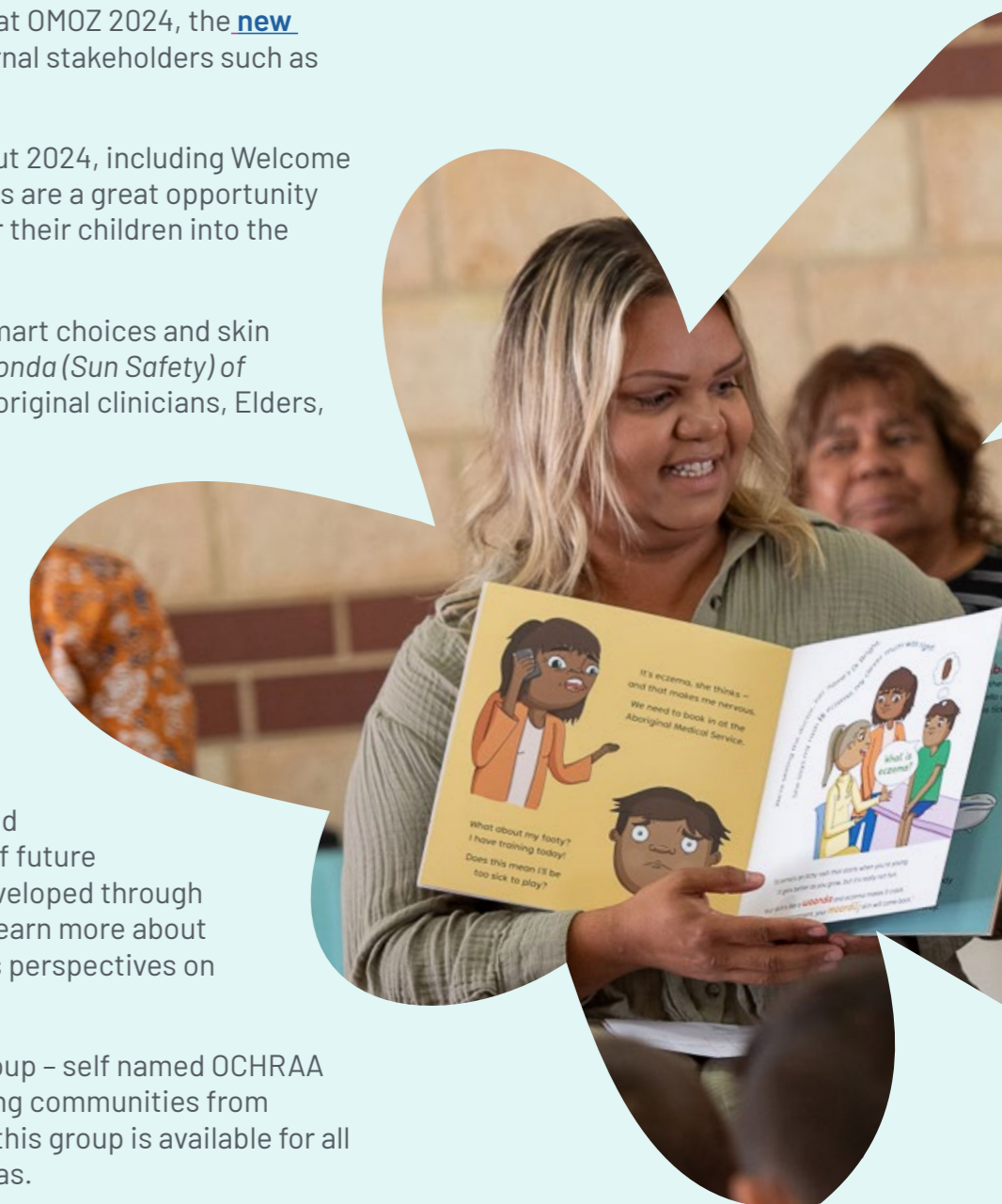
12

Aboriginal staff within the Wesfarmers Centre

17 publications with Aboriginal staff and community members listed as authors

- Several members of the Djaalinj Waakinj Aboriginal Community Advisory Group represented the Wesfarmers Centre at conferences and key events throughout the year, including the **OMOZ 2024** conference for all researchers, clinical practitioners and health workers investigating and treating chronic ear disease in Australia. Leon Hayward, Raelene Hayward and Justin Kickett (pictured left) shared their knowledge in a presentation titled Our Voice in the *Djaalinj Waakinj Ear Health Research Project*.

- The Ear Health team worked in close consultation with the Aboriginal Community Advisory Group to revise, reword and redesign an existing Quality of Life questionnaire for children with otitis media to make it more culturally appropriate for Aboriginal families. Published in the International Paediatric ENT journal and co-presented by Leon Hayward and Tamara Veselinovic at OMOZ 2024, the [new tool](#) is preferred by 80 per cent of families and is now being used by external stakeholders such as Hearing Australia.
- We were involved in a range of community engagement events throughout 2024, including Welcome Baby to Country and Moorditj Koort Indigenous Health Expo. These events are a great opportunity to share our work with the community and a number of families self-refer their children into the Djaalinj Waakinj Urban Aboriginal Ear Health Program.
- We received two major grants to support vital research promoting sun smart choices and skin cancer prevention for young Aboriginal people. The *Ngangk Ngabala Ngoonda (Sun Safety) of Aboriginal young mob of WA* study will involve close collaboration with Aboriginal clinicians, Elders, researchers, and community members to understand the barriers to sun protective behaviours and improve the availability of culturally inclusive, targeted sun safety resources.
- A children's book called *Kaal Tackles Eczema* – written by community, for community – was launched in Bunbury to help Aboriginal children and their families understand more about eczema. Developed by the [Koolungar Moorditj Healthy Skin Project](#), the book aims to reduce the incidence of bacterial skin infections through skin scratching associated with eczema.
- A blueprint for vaccine trials in Aboriginal communities is being developed with the [Ngangk Yira Institute for Change](#) at Murdoch University ahead of future Strep A vaccine studies. This will ensure an appropriate framework is developed through consultation with families and local organisations and help researchers learn more about community awareness around Strep A infections and vaccines, as well as perspectives on barriers and enablers for trial participation.
- We established a Wesfarmers Centre Aboriginal Community Advisory Group – self named OCHRAA (Our Children's Health Research Aboriginal Advisers) in 2024. Representing communities from across WA, with a wide range of lived experience of infectious diseases, this group is available for all researchers in the Centre to connect with and discuss their research ideas.





## Global public health: promoting health through research and partnerships

*We are furthering our  
partnerships with  
governments, industry and  
community to identify real-life  
solutions to emerging threats*



## Develop novel approaches to reduce emerging threats including antimicrobial resistance and vaccine hesitancy

- The first ever [Australian Group on Antimicrobial Resistance \(AGAR\) Kids Report](#) was prepared in 2024, using data collected from 38 laboratories throughout the country to identify the strains of bacteria responsible for sending kids to hospital. Commissioned by the Department of Health and Aged Care, the Report provides insight into the growing burden of antimicrobial resistance (AMR) in children and will provide an essential benchmark for all future research in this field.
- Researchers are continuing to work on developing a rapid point-of-care diagnostic test to reduce the burden of antibiotic-resistant Strep A infections in remote Aboriginal communities. A prototype has been developed and testing took place in the Beagle Bay community throughout 2024.
- We continued our global collaborations through the Strep A Vaccine Global Consortium (SAVAC) and led the development of multi-country record linkage studies to collate data for improved understanding around the global burden of Strep A diseases. Collection sites include Fiji, The Gambia, Malawi and India, and the results will be tested here in Perth for the global burden assessment.
- The inaugural 'Solutions to AMR' partnership workshop was held by the Wesfarmers Centre in October this year. This event brought together the Centre's experts who can collaborate in a united effort to seek partnership funding and prioritise approaches that will tackle antimicrobial resistance.
- With The UWA School of Social Science, we sponsored the first vaccine social science workshop, bringing together multidisciplinary researchers and consumers to address emerging challenges in vaccine hesitancy. The keynote speaker was Director of the Immunisation Foundation of Australia and Chair of our consumer advisory group, Catherine Hughes. She challenged attendees to do more to use research to combat vaccine hesitancy and improve community vaccine use, particularly with current outbreaks of vaccine preventable diseases.
- Our involvement in AusVaxSafety alongside the National Centre for Immunisation Research and Surveillance provides continued monitoring around vaccine safety and the detection of adverse events following immunisation. Researchers provide regular safety reports to government departments of solicited vaccine reactogenicity, adverse events of special interest, medical attendance following immunisation for COVID-19, influenza and vaccines listed on the National Immunisation Program (NIP). Throughout 2024, no safety issues were identified that led to the withdrawal of any of the NIP vaccines, reinforcing the ongoing safety of the current immunisation schedule.



## Prevent the health harms of COVID-19 and emerging pathogens

- The \$8 million national **PICOB00 Study** led by the Wesfarmers Centre is now in its third year of evaluating the impacts of licensed COVID-19 booster vaccines. There are 1112 enrolled participants, with 70 per cent of people located in Perth. Researchers have completed investigations on nine different vaccines to date and are currently evaluating booster vaccines targeting the Omicron XBB.1.5 variant. In 2025, we will begin investigating the new JN1 COVID vaccines, and recruitment is expected to be finalised in 2026.

### Key interim findings include:

- ③ Binding and neutralising antibody responses were higher following boosting with mRNA vaccines compared with Novavax.
- ③ All vaccines exhibited a decrease in antibody levels by day 84, with greater waning observed following mRNA vaccines compared with Novavax.
- ③ Reactions to the vaccine, such as injection-site pain, redness and swelling, were higher following mRNA boosters compared with Novavax.

- We were chosen as the central laboratory for the serology testing of serum specimens collected as part of the 2023 Paediatric Active Enhanced Disease Surveillance (PAEDS) research project, measuring antibody responses in over 1,000 children to eight Omicron subvariants of COVID-19. This analysis has provided valuable insights into current immunity levels among children and will help inform policy and practice under the National Immunisation Program.

- We invited external speakers to present at the Wesfarmers Centre Symposium Series, providing opportunities to learn of ongoing work in this area and the potential for collaborations.



**1,112**  
enrollments in the  
**PICOB00 Study**

Studied **9** different vaccine boosters

Pfizer Comirnaty:	Moderna Spikevax:	Novavax Nuvaxovid:
<ul style="list-style-type: none"> <li>➤ Original</li> <li>➤ Bivalent BA.1</li> <li>➤ Bivalent BA.4 5</li> <li>➤ XBB.1.5</li> </ul>	<ul style="list-style-type: none"> <li>➤ Original</li> <li>➤ Bivalent BA.1</li> <li>➤ Bivalent BA.4 5</li> <li>➤ XBB.1.5</li> </ul>	<ul style="list-style-type: none"> <li>➤ Original</li> </ul>



Have completed  
**4,581** study visits  
and  
**212** post-COVID-19 visits



Have generously provided over  
**14,850** blood and saliva samples



These samples have been processed into more than  
**70,000** individual vials for testing!

# Sharing our Knowledge

- **World Hearing Forum**, Geneva
- **BIO International Convention 2024**, San Diego
- **HeAL 2024 – Hearing Across the Lifespan**, Lake Como
- **International Trials Methodology Conference**, Edinburgh
- **ECCMID Global Congress of the European Society of Clinical Microbiology and Infectious Diseases**, Barcelona
- **IDWEEK Infectious Disease Society of America**, Los Angeles
- **American Society for Microbiology**, Atlanta
- **7th Biennial Collaborative Clinical Trials in Anaesthesia Meeting, Prato**, Italy
- **International Congress of Mucosal Immunology**, Copenhagen
- **Strep A Vaccine Global Consortium (SAVAC) Meeting**, London
- **World Congress for Pediatric Infectious Diseases**, Durban
- **20th International Congress on Infectious Diseases**, Cape Town
- **Australian Society for Microbiology**, Brisbane
- **ISSSI: 19th International Symposium on Staphylococci and Staphylococcal Infections**, Perth
- **Combined Biological Sciences Meeting**, Perth
- **BacPath Molecular Bacteriology Meeting**, Cypress Lakes, NSW
- **Lorne infection & immunity**, Lorne, VIC
- **Otitis Media Australia (OMOZ) 2024**, Newcastle
- **Communicable Diseases and Immunisation Conference**, Brisbane
- **Australian Cytometry Society**, Tasmania
- **15th Australasian CF Conference 2024**, Brisbane
- **15th Annual Conference of the Bayesian Network Modelling Association**, Brisbane
- **Australian Clinical Trial Alliance International Clinical Trials Symposium**, Melbourne
- **AusBiotech 2024**, Melbourne
- **Antimicrobials 2024 Annual Scientific Meeting**, Sydney
- **Rural Health West 2023/24**, Fremantle
- **Aboriginal Health Conference 2023/24**, Fremantle
- **Australian Society for Otolaryngology Head and Neck Surgery Conference**, Perth
- **Broome Festival of STEM**, Broome
- **Vaccine Social Science Symposium**, Perth
- **Northern Australia Regional Paediatric Meeting**, Broome



# Grants and Funding

*The Wesfarmers Centre is committed to supporting high quality research by providing support for researchers, enabling them to develop new ideas and grow those ideas into fundable competitive grants*



## Centre Seed Grants Awarded

Round 1:	
Grace McLoughlin, Ritika Kar Bahal, Mark Nicol, Anita Campbell, Donna Geddes, Jacqui Hume	Identification of human milk commensal bacteria with inhibitory potential against <i>Staphylococcus aureus</i> for the prevention and treatment of mastitis in breastfeeding women
Tamara Veselinovic, Celestine Aho, Rita Mark, Nalisa Neuendorf, Moses Laman, Casparia Mond, Deborah Lehmann, Chris Brennan-Jones	School-based screening for otitis media and hearing loss in the Eastern Highlands of Papua New Guinea: A mixed-methods pilot study
Huong Le, Hannah Moore, Jo-Anne Morgan, Rachel Foong, Francis Mitrou, Sami Carlson, Catherine Hughes, Chris Blyth	Using big data to understand influenza vaccine uptake in Australian children
Jasreen Kular, Vanessa Tenaglia, Wenna Lee, Andrew Currie, Laurens Manning, Tim Barnett	Identifying new therapeutic and vaccine targets to prevent severe Strep A infections
María Dueñas, Elke Stroehrer, Jua Iwasaki, Chris Tjiam, Ruth Thornton, Kevin Looi, Tim Barnett, Alma Fulurija	Developing an immunoprecipitation and proteomics workflow to support vaccine development
Round 2:	
Jane Oliver, Rachel Burgess, Shakayla Walley, Kristal Rivers, Liam Bedford, Laurens Mannin	Co-designing culturally appropriate health promotion materials to support a novel approach to rheumatic heart disease prophylaxis
Bernadette Wong, Janessa Pickering, Tanya Applegate, Asha Bowen, Jeff Canon, Susan Matthews, Rebecca Guy	POCC-UPINES in the lab: Point-Of-Care Comparison – Understanding Performance, Integration and Evaluation for Strep A in the lab
Sharon Clark, Ruth Thornton, Peter Richmond, Elke Seppanen, Lea-Ann Kirkham, Jack Pepper, Anthony Bosco	Seeking data to decipher the immune responses in otitis prone children; an RNAseq approach
Ingrid Amgarth-Duff, Asha Bowen, Bernadette Ricciardo, Hannah Thomas, Steph Enkel, Jacinta Walton, Rachel Burgess, Charlie McLeod, Dale Tilbrook, Noel Nannup	More than just an itch: understanding attitudes to head lice infestations in Australian communities
Bonnie Hyatt, Kalindu Rodrigo, Tim Barnett, Janessa Pickering, August Mikucki, Mark Nicol, Ritika Kar Bahal, Kevin McIver, Kathy Sparg	Investigating microbiome-dependent antibiotic resistance in Strep A
Lydia Timms, Val Swift, Victoria Bishop, Chris Brennan-Jones, Tamara Veselinovic	Towards a shared understanding of the language development of Aboriginal children and the impact of otitis media interventions



## Inaugural Riley Hughes Memorial Award Winner

- **Sonia McAlister**
- Christian Tjiam
- Anita van den Biggelaar
- Ruth Thornton
- Matthew Cooper
- Nicholas Wood
- Peter Richmond

*Developing a novel B-cell assay to unravel immune interference in infants after maternal whooping cough immunisation*



## Centre Catalyst Grants Awarded

Ruth Thornton, Lea-Ann Kirkham, Tim Hughes, Peter Richmond, Sharon Clark, Shyan Vijayasekaran	Blitz-OM – development of a slow-release anti-biofilm treatment to prevent the need for recurrent grommet surgery
Wenna Lee, Tim Barnett, Danika Hill, Maria Dueñas, Jonatan Leffler, Jonathan Carapetis, Glenn Pearson	Exploring the Ignition for Acute Rheumatic Fever after Strep Throat
August Mikucki, Janessa Pickering, Mark Davies, Vanessa Fear, Alma Fulurija, Tim Barnett	Development of a "Cutting Edge" culture-independent technology for Strep A epidemiology

## Training Support

Lea-Ann Kirkham	2024 BIO International Convention (San Diego, California, USA)
Carla Puca	Communicable Diseases and Immunisation Conference 2024 (Brisbane, Queensland)
Charlie McLeod	34th European Congress of Clinical Microbiology and Infectious Diseases (Barcelona, Spain)
Marie Dueñas	International Congress of Mucosal Immunology (Copenhagen, Denmark)
Chris Brennan-Jones, Greta Bernabei, Jaimee Rich, Tamara Veselinovic	Hearing Across the Lifespan 2024 Conference (Lake Como, Italy)
August Mikucki	ASM National Meeting 2024 (Brisbane, Queensland)
Caitlin Symons	Australasian Research Management Society 2024 Conference (Darwin, Northern Territory)
Melinda Edmunds, Chris Brennan-Jones, Tamara Veselinovic, Greta Bernabei, Tanisha Cayley, Jaimee Rich, Celestine Aho, Willie Pomat	OMOZ 2024 (Newcastle, New South Wales)
Lea-Ann Kirkham, Ruth Thornton, Naomi Scott, Sharon Clark, Caitlyn Granland, Jo Bayliss	OMOZ 2024 (Newcastle, New South Wales)
Imke Houwers	The Bridge Program (Queensland University of Technology)

## Aboriginal Capacity Building

Val Swift, Steph Bray, Leon Hayward (Community Member), Raelene Hayward (Community Member), Justin Kickett (Community Member)	OMOZ 2024 (Newcastle, New South Wales)
Kerryn Gidgup	Planning, implementing and evaluating health promotion interventions Health Promotion short course (Curtin University)

## Ad Hoc Funding

Deborah Lehmann	Funding for visit from Willie Pomat, Director of the Papua New Guinea Institute of Medical Research
Chris Blyth	Sponsor of the 2024 Vaccination Social Science Symposium

## Higher Degree Research Scholarship Recipients

Vanessa Tenaglia	Strep A Pathogenesis & Diagnostics
Bernadette Wong	Healthy Skin & ARF Prevention
Alisha Wilson	Strep A Pathogenesis & Diagnostics



## External Funding Grants Received in 2024

Project Title	Funding Awarded	Funding Body	Funding Scheme	Investigator Name
Novel probiotic candidates for the prevention of group A Streptococcus	\$252,000.00	BrightSpark Foundation	BrightSpark Early-Career Child Health Researcher (ECCHR) Fellowships Program	August Mikucki
Decoding antibody signatures after maternal immunisations	\$252,000.00	BrightSpark Foundation	BrightSpark Early-Career Child Health Researcher (ECCHR) Fellowships Program	Sonia McAlister
Capturing the impact of respiratory syncytial virus infections and assessing the cost-savings of respiratory syncytial virus interventions	\$208,518.69	BrightSpark Foundation	BrightSpark Early-Career Child Health Researcher (ECCHR) Fellowships Program	Minda Sarna
What happens at two? Diagnosing the sub-optimal vaccine coverage of country West Australian toddlers	\$10,000.00	Department of Health WA	Contract Research- WA Department of Health	Carla Puca
A slow-release anti-biofilm treatment for middle ear infections to prevent the need for recurrent grommet surgery	\$145,000.00	National Foundation for Medical Research and Innovation	NFMRI General Project Grants	Dr Ruth Thornton
Blitz-OM: a slow-release anti-biofilm treatment for middle ear infections 'glue ear'	\$600,000.00	Department of Health WA	WACRF-WA Child Research Fund (formerly TPCHRF)	Dr Ruth Thornton

Project Title	Funding Awarded	Funding Body	Funding Scheme	Investigator Name
Blitz-OM- development of a slow-release anti-biofilm treatment to prevent the need for recurrent grommet surgery	\$50,000.00	Therapeutic Innovation Australia	Pipeline Accelerator 2023-24	Dr Ruth Thornton
Expansion of Cryogenic Biobanking Infrastructure for Paediatric Research	\$597,618.55	Department of Health WA	FHRI Fund Enabling Scheme 2024	Prof. Peter Richmond
"A novel vaccine to prevent Group A Streptococcus attachment to the tonsils"	\$100,000.00	Department of Health WA	WA Near-miss Awards	Jua Iwasaki
Djaalinj Waakinj (Listening, Talking): partnering with the community to improve prevention, treatment and long-term outcomes for children with ear disease and hearing loss	\$100,000.00	Department of Health WA	WA Near-miss Awards	Dr Chris Brennan-Jones
Changes to Country: The role of Aboriginal cultural practices in mitigating the impact of, and adapting to, climate change to enhance Social and Emotional Welllbeing	\$973,967.29	Department of Health Commonwealth	MRFF Million Minds Mission - 2023 Mental Health Research Grant	Mr Glenn Pearson
Strong Skin means Strong Health	\$2,792,745.00	National Health and Medical Research Council	NHMRC Investigator Grant	Dr Asha Bowen



External Funding Grants Received in 2024 continued...

Project Title	Funding Awarded	Funding Body	Funding Scheme	Investigator Name
Co-design of a program supporting paternal involvement in preterm care	\$388,684.00	Healthway	Healthway Intervention Research Grants	Clin Prof Tobias Strunk
The Immunity to Streptococcus pyogenes Network: iSpy-Net	\$858,240.00	Leducq Foundation	Leducq Foundation - Network Research Grant	Dr Alma Fulurija
A nasal therapy to prevent childhood ear infections and reduce antibiotic use: manufacture for Phase 1 trials	\$499,120.00	Brandon Biocatalyst	CUREator	Dr Lea-Ann Kirkham
Development and evaluation of culturally relevant healthy skin storybooks'	\$598,534.80	Department of Health Commonwealth	MRFF PPHRI- 2023 Consumer-Led Research	Dr Asha Bowen
New ways to prevent Rheumatic Heart Disease in children	\$479,040.47	Stan Perron Charitable Foundation	Perron People and Platforms	Dr Janessa Pickering
Pacific Rheumatic Heart Disease Centre of Excellence	\$5,000,000.00	Department of Foreign Affairs and Trade	DFAT Indo-Pacific Centre for Health Security	Dr Joe Kado
Deciphering natural immunity to Strep A to prevent rheumatic heart disease	\$881,780.00	National Health and Medical Research Council	NHMRC Ideas Grant	Dr Janessa Pickering
Raine Clinical Research Fellowship	\$328,557.00	Raine Medical Research Foundation	WA Department of Health/Raine Clinician Research Fellowships	Dr Daniel Yeoh
The STAMP (Surveillance-Transmission-Attitudes-Modelling and Policy) RSV Program	\$2,475,971.00	Stan Perron Charitable Foundation	Perron Programs and Partnerships	Dr Hannah Moore

Project Title	Funding Awarded	Funding Body	Funding Scheme	Investigator Name
"Reconceptualising the staging of rheumatic heart disease to be meaningful for consumers, professionals and health service. "	\$20,000.00	Heart Foundation	Heart Foundation Postdoctoral Fellowships	Dr Rosemary Wyber
Active listening: addressing community priorities and recommendations from the SToP Trial.	\$251,790.00	BrightSpark Foundation	BrightSpark Early-Career Child Health Researcher (ECCHR) Fellowships Program	Hannah Thomas
A comprehensive approach to finding modifiable risk factors for bronchiectasis in infants with bronchiolitis	\$599,933.00	Department of Health WA	WACRF-WA Child Research Fund (formerly TPCHRF)	Assoc/Prof Chris Blyth
Can one vaccine help another? Enhancing responses to the 13-valent pneumococcal conjugate vaccine in Western Australian infants	\$600,000.00	Department of Health WA	WACRF-WA Child Research Fund (formerly TPCHRF)	Prof. Peter Richmond
Profiling the immune response to Strep A infection to design better vaccines for RHD prevention.	\$600,000.00	Department of Health WA	WACRF-WA Child Research Fund (formerly TPCHRF)	Dr Alma Fulurija
Putting an end to rheumatic heart disease: evidence into action	\$662,040.00	National Health and Medical Research Council	NHMRC Investigator Grant	Dr Rosemary Wyber
SpritzOM - a nasal vaccine that prevents ear infections: proof-of-feasibility study	\$499,994.00	Department of Health WA	FHIRF - Innovation Seed Fund	Dr Lea-Ann Kirkham



**TOTAL FUNDING Aug 23 - Oct 24**

**\$20,825,534**

# Awards and Recognition



Aunty Dot Getta

- **Aunty Dot Getta** won the 2024 WA NAIDOC female Elder of the Year Award



Tamara Veselinovic



Stephanie Enkel

- **Tamara Veselinovic and Stephanie Enkel** – Finalists for Student Scientist of the Year at the Premier's Science Awards
- **Ruth Thornton** – Andrea Tongue Development Award (internal)
- **Sharon Clark** – Friends of the Institute Travel Award
- **Naomi Scott** – Barbara May Scholarship (internal)
- **Tamara Veselinovic** – UWA Convocation Postgraduate Research Travel Awards – Sue Baker Award

- **Minda Sarna, Renee Ng, August Mikucki, Sonia McAlister, Emily McLeish** – BrightSpark Foundation WA Early-Career Child Health Researcher Fellowships for 2024

- **Laurens Manning** – South Metropolitan Health Service Researcher of the Year



Tim Barnett

- **Tim Barnett** – UWA School of Biomedical Sciences Award for Research Mentorship



Asha Bowen

- **Asha Bowen** – Medal of the Order of Australia
- **Asha Bowen** – President of the World Society of Pediatric Infectious Diseases
- **Chris Blyth and Asha Bowen** – elected as Fellow of the Australian Academy of Health and Medical Sciences
- **Samantha Carlson, Carla Puca, Val Swift, Naomi Nelson, Anastasia Phillips, Chris Blyth** – Moort Vax Waangkiny Project, WA Health Inoculate Accolade 2024



Hannah Moore

- **Hannah Moore** – Medal of the Order of Australia
- **Hannah Moore** – Awarded the Mid-Career Researcher Award 2024 from the Faculty of Health Sciences at Curtin University
- **Bernadette Ricciardo** – Raine Clinician Fellowship
- **Tim Barnett and Charlie McLeod** – Health Research Fellowships from the Perron Foundation

Vale Emeritus Professor  
Michael Alpers  
AO CSM  
FRS FAA



1934 – 2024

We honour the memory of Emeritus Professor Michael Alpers, a colleague and friend to many at the Wesfarmers Centre, who passed away in December 2024.

A pioneering scientist and compassionate humanitarian, Professor Alpers was Emeritus Professor of International Health at Curtin University, having joined Curtin in 1999, and Director of the Papua New Guinea Institute for Medical Research (PNGIMR) from 1977 to 2000.

Professor Alpers mentored and inspired many of our researchers, including Peter Richmond, Chris Blyth, Lea-Ann Kirkham, Hannah Moore, Chris-Brennan-Jones, and Ruth Thornton.

