



2023

Annual Report

A more equitable world
through better health



Burnet
reach for the many



Burnet Institute is an independent, not-for-profit medical research institute passionate about social justice, equality, and evidence-based research.

Our Vision

A more equitable world through better health.

Our Purpose

Create and translate knowledge into better health so no-one is left behind.

Our Global Impact

Priority countries:

Australia | Papua New Guinea | Myanmar



We also support and contribute to research and public health programs in many other countries across Asia, the Pacific, Africa, Europe, and North America.

Burnet Institute (Australia) is located on the traditional land of the Boon Wurrung people and we offer our respects to their Elders past and present. We recognise and respect the continuation of cultural, spiritual and educational practices of Aboriginal and Torres Strait Islander peoples of this land.

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Image (cover): A Burnet project designed to strengthen sexual and reproductive health education included sessions among parents to build their understanding and foster open communication within families about puberty changes, contraception, and gender roles, among others. Photo by Maung Aye Chan, and used with permission.

Chair's Message



Ms Mary Padbury

BA, LLB (Hons)

Chair

A handwritten signature in black ink that reads "Mary Padbury".

Chair of Burnet Institute since 2019. Director since 2011.

Director of Commonwealth Bank of Australia, Brandenburg Ensemble Limited, Richmond Football Club Limited. Custodian of Ormond College, The University of Melbourne. Member, Chief Executive Women.

Over the past year, natural disasters and geopolitical conflicts have devastated and disrupted lives the world over.

As a medical research institute and DFAT accredited NGO, we have a crucial role to play in supporting the fundamental human right to good health, especially in times of crisis and trauma, and especially among the vulnerable and hard to reach.

To meet our responsibilities, we must strive for excellence in the lab and in the field. Our strong financial position, independence, disciplinary integration of life sciences, public health and international development, and translation of research outcomes help make this possible.

In 2023, we took steps to further strengthen the Burnet Executive team with key appointments in Research Translation; International Operations; Gender Equity, Diversity, and Inclusion; and Human Resources. These will bolster our continued efforts to:

- Ensure our research is translated into practical, accessible and affordable solutions
- Collaborate effectively with organisations and communities in Asia and the Indo-Pacific
- Foster equity, opportunity and wellbeing in our own workplace.

In the year ahead, we will be renewing our commitment to First Nations communities and embracing the opportunities presented by developments including the Australian Centre for Disease Control by the Federal Government announced this year.

As Chair, I would like to acknowledge the hard work and diverse contributions of my board colleagues. I would like to thank Leigh Jasper, Miche Hartigan and Alison Larsson, who retired from the board, for their outstanding service. I would also like to welcome Robin Davies, James Flintoft and Kate Galvin who have joined the board.

I would like to extend my thanks to Professor Brendan Crabb AC for his vision and leadership; our donors and supporters for their generosity and advocacy on our behalf; and each and every member of the Burnet team for their outstanding work and ongoing commitment to our purpose.

I am proud of our efforts to support and advocate for the health, safety and wellbeing of communities affected by marginalisation so that no-one is left behind.

Director's Message



Professor Brendan Crabb AC
PhD, FAA, FAHMS, FASM
Director and Chief Executive Officer



Director and CEO of Burnet Institute since 2008.

Chair of Australian Global Health Alliance, Pacific Friends of Global Health, and Australian Academy of Science—Sectional Committee 9 (SC9) Molecular and Cell Biology and Human Genetics.

Member of Telethon Kids Institute Board, The Brain Cancer Centre Research Advisory Committee, Alfred Research Alliance, mRNA Victoria Scientific Advisory Board, WHO Malaria Vaccine Advisory Committee (MALVAC), Board of Management, Gene Technology Access Centre (GTAC), Victoria, Victorian Aboriginal Research Accord-Reference Group, Scientific Advisory Board, Wellcome Trust Sanger Institute, UK.

Adjunct Professor, The University of Melbourne, and Monash University.

In 2023, we launched our new brand, sharpened our vision for a more equitable world through better health, and made our refreshed purpose clear: to create and translate knowledge so no-one is left behind.

Under our new positioning statement, *Reach for the many*, we achieved some outstanding results. We increased our investment across our programs and initiatives, including the Burnet Diagnostics Initiative, the Burnet Vaccine Initiative, and Eliminate Hepatitis C Australia. We launched the Indigenous Health Research Capacity Building Initiative to foster the next generation of First Nations research leaders. We established the Burnet Institute Environmental Committee to connect our environmental and climate stewardship with our work as a medical research institute and international NGO.

Our team had extraordinarily strong successes, securing new grants, publishing over 350 papers in peer-reviewed journals, and launching an array of promising new partnerships and collaborations. Growth and outcomes in maternal and child health research were a particular highlight of 2023.

We also unveiled designs for our new home within the Australian Institute for Infectious Disease. Along with fellow founding partners, the Doherty Institute and The University of Melbourne, we look forward to its completion and to the Institute ultimately relocating to this new purpose-built facility in Parkville, Victoria, and to working in synergetic partnership with our neighbours.

We also implemented various internal initiatives to ensure our people have the support and resources they need to do their best work. These include our new internal funding mechanisms, our Reconciliation Action Plan, and programs for job security, gender equity, and cultural safety.

I am grateful to our partners and donors for their support, our tireless Executive Team, and our superb Board, led by Mary Padbury. Our staff and students are our core strength. I offer my wholehearted thanks to each and every member of our team and acknowledge their outstanding work.

Burnet is in the best position it has ever been in, financially, programmatically, and culturally. But we are going to need every bit of that strength and more, to address the headwinds of the intersecting crises that all countries are facing, crises that impact the communities we focus on more than anyone else.

Burnet's Board and Executive Leadership Team

The Board and Executive Leadership Team comprise highly qualified individuals who have rich and diverse skillsets spanning medical research, public health, medicine, law, business development, advocacy, communication, finance, corporate governance and innovation.



Ms Mary Padbury
BA, LLB(Hons)
Chair



Professor Brendan Crabb AC
PhD, FAA, FAHMS, FASM
Director and Chief Executive Officer

Directors



Mr Robin Bishop
LLB(Hons), BCom, BA
Director 2012–September 2021, 2022–present. Founder and Managing Partner, BGH Capital. Former Head and Executive Director, Macquarie Capital Australia and New Zealand. Commissioner, Australian Football League Commission, Member, Australian Takeovers Panel.



Professor Sandra Eades AO
PhD, FTSE, FASSA, FAHMS
Director since 2020. Deputy Dean (Indigenous), Faculty of Medicine, Dentistry and Health Sciences, and Rowden White Professor, The University of Melbourne.



Mr Robin Davies
BA (Hons)
Director since 2023. Director, Idrys Organisation. Former First Assistant Secretary, Global Health Division, Department of Foreign Affairs and Trade. Former Head, Indo-Pacific Centre for Health Security. Member of FemiliPNG Australia Board, Asia-Pacific Leaders Malaria Alliance Board, Advisory Board of the Australian Global Health Alliance, Global Health Security Network Board.



Associate Professor Helen Evans AO
BA, BSoc Admin
Director since 2015. Associate Professor (Hon), The Nossal Institute for Global Health, The University of Melbourne. Vice Chair, The Fred Hollows Foundation Board, and Technical Evaluation Reference Group of Global Fund to Fight AIDS, Tuberculosis and Malaria. Member of the Advisory Board of the Australian Global Health Alliance, Technical Reference Group of The Indo-Pacific Health Security Initiative, and Expert Advisory Group to the DFAT Vaccine Access Taskforce.

**Mr James Flintoft**

LLB, BSc, M.B.A. (Wharton), FAICD
 Director since December 2023.
 Director of Epworth Healthcare,
 Transport Accident Commission,
 and Development Victoria.

**Mr Leigh Jasper**

BEng(Hons), BSc
 Director from 2016–May 2023.
 Chair of LaunchVic, SecondQuarter
 Ventures, SEEK Ltd, Buildxact Pty
 Ltd, and Payapps. Former CEO
 and Co-Founder, Aconex.

**Mr Benjamin Foskett**

BBus, FAICD, Exec Fellow
 ANZSoG, Victorian Fellow of IPAA
 Director since 2013. Chair of
 Hong Kong BioPoint, and Nanjing
 BioPoint. Executive Director,
 Pathway Services Pty Ltd.
 Executive Officer, MCG Trust.
 Director, Britmore Pty Ltd.

**Ms Alison Larsson**

BEcon, FCPA, GAICD
 Director since 2017. Former
 Director, IFM Investors. Former
 Chief Risk Officer, Global
 Technology Services and
 Operations, ANZ Banking Group.

**Ms Kate Galvin**

B.Ec, LLB, GAICD
 Director since 2024. CEO,
 Victorian Funds Management
 Corporation. Member, Chief
 Executive Women.

**Dr Sergio Scrofani**

BSc(Hons), PhD, MBA, GAICD
 Director since 2019. Principal,
 Poplar Advisory Pty Ltd. Director
 of FinCap Pty Ltd, and Centre
 for Eye Research Australia.

**Mrs Miche Hartigan**

Director from 2017–May 2023.
 Managing Partner, MJH Consulting.
 Advisory Board Member,
 Newgate Communications.

**Mr Michael Ziegelaar**

LLB(Hons), BEcon, LLM
 Director since 2015. Partner and
 Co-Head, Equity Capital Markets
 (Aust) Herbert Smith Freehills.
 Director, Seven West Media.

Executive Leadership Team

Director and CEO

Professor Brendan Crabb AC

Deputy Directors

Professor Margaret Hellard AM
 Professor James Beeson
 Professor Caroline Homer AO
 Chad Hughes

Chief Operating Officer

Mark Tennent

**Chief Financial Officer
and Company Secretary**

Peter Spiller

**Director, Strategic Funding,
Partnerships, Innovation
and Communication**

Geoff Drenkhahn

Chief of Staff

Paul Rathbone

Chief People Officer

Leanne Lawrence

**Scientific Director for
Research Translation**

Professor Heidi Drummer

**Co-Head, Strategy,
Insights and Impact; Head,
Development Effectiveness**

Mary-Ann Nicholas

**Executive General
Manager, Communication
and Marketing**

Christine Elmer

2023

Year at a Glance



JANUARY/FEBRUARY

The year began with COVID-19 continuing to run rampant, making many Australians sick, including chronic or long-term effects, causing higher than expected deaths. Globally, life expectancy decreased for the first time in 70 years.

At the Federal House of Representatives' Inquiry into Long COVID and Repeated COVID Infections, Burnet Director **Professor Brendan Crabb AC advocated for the half a million Australians with long COVID, urging the Inquiry to acknowledge the condition.**

"If the committee achieved nothing else but penetrating the Australian psyche around the significance of this issue, it will have achieved a lot [for people affected now] and for what happens in future [as we are all at risk]," he said.

MARCH

The Fleming Fund—a £265 million UK aid investment to tackle antimicrobial resistance in low- and middle-income countries—announced it will extend the Papua New

Guinea Country Grant to the end of 2023. **The implementation of this major project is led by Burnet, in close collaboration with a wide range of partners from Australia and Papua New Guinea (PNG).** See story on page 16.

An innovative and ambitious project to screen, test and treat residents of Daru, PNG, for TB was officially launched in 2023. Daru is a hotspot for multidrug-resistant TB where Burnet has been working in partnership with the Western Provincial Health Authority since 2014. The Systematic Community-Wide Engagement & Elimination Project for TB in Daru (SWEEP-TB), or *Yumi Bung Wantaim Na Rausim TB Long Daru* aims to reduce TB incidence through the implementation of a comprehensive community-wide strategy that screens Daru residents for active TB disease, tests for TB infection and provides treatment or prevention as required. The approach combines TB screening with mobile chest X-ray that uses AI-based detection and molecular diagnostics, linkage to effective treatments, and novel strategies for prevention.

The project is funded through the Medical Research Future Fund and complements the existing RID-TB program, supported by the Australian Government through the PNG-Australia Partnership.



Associate Professor Michelle Boyle, Group Head of Cellular Responses to Disease and Vaccination, was **awarded a Snow Medical Research Foundation Fellowship**—Australia’s largest philanthropic biomedical fellowship—to support her research into malaria immunity. Dr Boyle will receive AUD\$1 million every year for eight years for the development of vaccines and therapeutics for malaria, which is one of the biggest killers in children under five years of age globally.

APRIL

Research found Myanmar’s people and health systems showed resilience during double crises—the pandemic, and political upheaval. **In the first study of its kind in the country, it found people in Yangon stayed resilient by developing alternative pathways to seek and provide health services**, such as teleconsultations, mobile clinics, and sharing social media advice. One of the authors, Research Director of Burnet Institute Myanmar Dr Kyu Kyu Than, said people relied on community-based social organisations for transportation and to access essential medicines in times of emergency.

MAY

Burnet introduced its new visual identity and positioning statement, ‘Reach for the many’.

“As scientists and researchers, we reach for solutions to complex problems; for discoveries and new knowledge. But of course, there’s a

humanitarian context of reaching to get the products and benefits of those discoveries to the whole community, especially to those most in need,” Professor Crabb said. **“And ‘for the many’ is an essential affirmation of our focus on equity, and the last line of our purpose—that no-one is left behind.”**

Findings from a systematic review, with Burnet Senior Research Officer Dr Annie McDougall as the lead author, **informed World Health Organization (WHO) recommendations on how to improve preterm birth outcomes.** WHO recommends women at risk of preterm birth within seven days should be administered antenatal corticosteroids, even if it is anticipated that they may deliver before completing the full course of steroids.

JUNE

The Australian Institute for Infectious Disease (AIID)—of which Burnet is a foundation partner—announced its location and building design. The AIID is a visionary AUD\$650 million project supported by the Victorian Government to provide a rapid, coordinated response to current and future pandemics and infectious diseases. It aims to do this by fostering collaboration between foundation partners (The University of Melbourne, Doherty Institute and Burnet), industry, and an alliance of Victorian infectious disease organisations.

A Burnet project to support women’s sexual and reproductive health by targeting bacterial vaginosis and its recurrence was awarded a **grant from the Victorian Government’s Victorian Medical Research Acceleration Fund.** The research, led by Professor Gilda Tachedjian, Group Head of Retroviral Biology and Antivirals Laboratory, focuses on the development of a novel bioactive to optimise the vaginal microbiome.

JULY

The **Burnet Diagnostics Initiative (BDI)** reached a major milestone in July, with the **awarding of ISO 9001 certification**. The International Organization for Standardization (ISO) 9001 certification is based on quality management principles including a strong client focus, the motivation and involvement of senior leaders, the process approach, and a commitment to continual improvement. See story on pages 20-21.

AUGUST

Burnet received a AUD\$3.97 million NHMRC grant to support the SuperMIX and VMAX studies into the health needs of people who inject drugs, for a further five years. The longest ongoing study of its type in Australia, SuperMIX has been running since 2008 with more than 1500 participants, while VMAX is a joint study between Burnet and Monash Rural Health of 800 Victorians who use methamphetamine.

Burnet welcomed 11 delegates from PNG and Fiji as part of the Australia Awards Fellowships, an initiative of the Australian Government to build networks of influence

and leadership by strengthening partnerships between Australian and partner organisations in the region. The delegates, from a range of professional backgrounds, spent two weeks at Burnet, participating in workshops focused on HIV prevention and health promotion, including harm reduction and community-based testing. **Burnet also welcomed Australia Awards Fellowships delegates from Myanmar and Tanzania** to learn more about the prevention, treatment and testing of hepatitis C, and harm reduction for people who inject drugs.

SEPTEMBER

Burnet research projects into malaria and maternal and newborn health were awarded AUD\$5 million in funding from NHMRC Centres of Research Excellence grants.

Led by Professor Freya Fowkes, the Modern Acceleration Strategies for Eradication of Malaria in the Asia-Pacific (MASTER-MAP) CRE has been granted AUD\$2.5 million over five years. The Accelerating Research and Progress in Maternal and Newborn (ARPAN CRE) health virtual centre will receive AUD\$2.5 million over five years, led by Professor Caroline Homer AO, Co-Head of the Global Women's and Newborn's Health Group.



Image: AAF delegates attend a workshop hosted by Burnet Sexual and Reproductive Health Specialist, Lisa Davidson.

OCTOBER

The AIID provided an expert submission as part of a comprehensive consultation process led by the Federal Government to guide its contribution to reforming the International Health Regulations and the formulation of a new international pandemic accord.

Burnet Institute, together with foundation partners Doherty Institute and The University of Melbourne, **called for improved international rules for surveillance, early detection, and responses to new and emerging diseases** to avoid a repeat of the inequitable and disjointed outcomes seen during the emergency phase of the COVID-19 pandemic.

NOVEMBER

Burnet Institute entered into a **Research Licence and Option Agreement with biopharma company argenx for Stellabody®**, a ground-breaking technology that supercharges monoclonal antibodies and antibody-like drugs and can be tailored to suit a broad range of disease targets and applications. Discovered by researchers of the Immune Therapies Group at Burnet, Stellabody® has the potential to improve existing medicines and pave the way for new life-saving treatments. See story on pages 22-23.

Burnet research into **eliminating hepatitis C in Australia received an AUD\$5 million Synergy Grant from the NHMRC**. Led by Deputy Director of Programs, Professor Margaret Hellard AM, the grant will support identification of new models of care for people living with the hepatitis C virus that are cost-effective, sustainable and easily scaled up to increase testing and treatment. "This work is critically important if Australia is to achieve the 2030 target of eliminating hepatitis C as a public health threat," Professor Hellard said.

DECEMBER

The first-year **report of the Reaching Zero-Dose and Under-Immunised Children in East New Britain, Papua New Guinea project**, was released. A partnership with the East New Britain Provincial Health Authority and Papua New Guinea Institute of Medical Research, the project aims to better understand the challenges around children accessing routine immunisation, and to better plan and develop context-specific strategies to address them.

At the **2023 Burnet Oration, world-renowned COVID-19 researcher Dr Ziyad Al-Aly**, Chief of Research and Development at VA St Louis Health Care System, **shared his findings on the risks of long COVID-19 infection and reinfection**. The oration was an opportunity to bring our staff, students, supporters and donors together for networking and a keynote address from an expert in the field, at our largest in-person event since 2019.

The year finished on a high for **Burnet researchers awarded Investigator Grants from the NHMRC for their work in reducing the burden of hepatitis B, and sexually transmitted infections among gay and bisexual men**. Associate Professor Jessica Howell received AUD\$1.3 million for her project focused on the use of novel diagnostics, new models of care and economic modelling to achieve hepatitis B elimination and reduce liver cancer deaths. Further funding of more than \$600,000, will assist Dr Michael Traeger's development of a surveillance and prevention research framework to reduce sexually transmitted infections in gay and bisexual men.

Our Impact



355

peer-reviewed publications



29

research working groups



20+

countries we work in



\$15.98m (AUD)

in NHMRC grants
and fellowships



500+

scientists, public health
professionals and support
staff



\$79.3m (AUD)

spent on improving health
for a more equitable world



Disease Elimination

Eliminating infectious diseases and reducing harms to improve population health

Next generation vaccine towards protection against future coronaviruses

Burnet researchers have developed a conventional protein vaccine against COVID-19 that could pave the way for alternative vaccines for SARS-CoV-2 and other coronaviruses.

Having studied how spike proteins function in other viruses, particularly in hepatitis C and HIV, researchers applied their knowledge to COVID-19 vaccine development during the pandemic.

The research, published in *PLOS Pathogens* in May 2023, showed that the next generation vaccine was effective in producing protective antibodies in preclinical studies, with improvements in temperature stability of the spike protein and without the use of stabilisation clamps.

Lead author of the paper Dr Andy Pountourios said there were some distinct benefits of the vaccine compared to current mRNA vaccines for COVID-19.

“Current mRNA vaccines need to be stored and transported at -80°C , which is a barrier for developing countries,” he said. “There are also some people who are not able to have the current vaccine for various reasons, so having an alternative will provide access to a greater number of people.

“We wanted to produce a more traditional protein-based vaccine that was more stable and easier to produce.”

IMPACT

The research team was able to engineer COVID spike proteins that did not require a clamp, allowing them to produce a more stable vaccine that could be stored at a much higher temperature.

Preclinical studies showed that the vaccine was able to produce the types of antibodies shown to protect against the SARS CoV-2 virus.

The team is now focused on progressing the work through to clinical trials. The goal is to produce an effective protein vaccine that is stable enough to be stored at 4°C and is cheaper to produce than the current vaccines for COVID-19, allowing greater access for developing countries. This includes testing whether our COVID-19 vaccine technology can be used against other coronaviruses that could lead to future pandemics.

New insights into how malaria infects blood cells

Researchers have made new insights into malaria infection that may provide new strategies to develop highly protective vaccines.

A protein that plays a critical role in enabling malaria parasites to infect red blood cells—known as apical membrane protein 1 (AMA1)—has been found to bind to more than one receptor on the surface of the cells.

The discovery has significant implications for how best to target this protein with vaccines and therapeutics.

AMA1 is unusual in that it's one of the few proteins used for infection of red blood cells that is shared by the *P. falciparum* and *P. vivax* parasites, which are the two main causes of malaria.

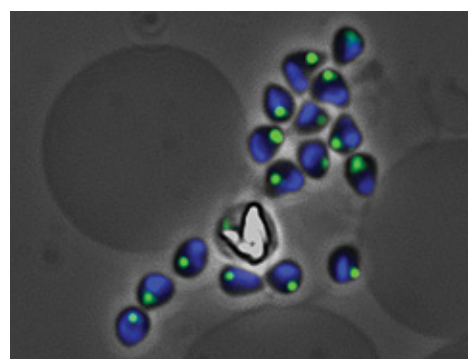
Head of Burnet Institute's Malaria Immunity and Vaccines Research Group, Professor James Beeson, said while both *P. falciparum* and *P. vivax* caused malaria, the two were very different, which has posed challenges in vaccine development.

"AMA1 is essential for both these malaria parasites to get into red blood cells, which is why it's such a good target for malaria vaccines," he said. "AMA1 interacts with the surface of the red blood cell, and that enables the malaria parasite to get into the cell, and subsequently replicate.

"It was previously thought that AMA1 only had one way of binding to the surface of the cell, but this research revealed that it can also bind to an additional receptor."

IMPACT

The discovery, published in *Cellular and Molecular Life Sciences* in May 2023, has implications for how best to target the protein with vaccines and therapeutics that are more effective in blocking infection and preventing malaria caused by *P. falciparum* and *P. vivax*.



Left: Professor James Beeson, Head of Malaria Immunity and Vaccines Group.

Top: *P. falciparum* merozoites (coloured blue and green) are clustered around a human red blood cell (larger grey round cell) immediately prior to infecting it. Blue = parasite nucleus, green = merozoite proteins used for infection.

Let's talk about sex

In a world where pornography, sexting and explicit imagery are rife, researchers are breaking down myths and correcting misconceptions surrounding sex for young people.

Young Australians report that current sexual health education is lacking and that they rely on the internet to learn about sex. Online pornography access is associated with poor mental health, increased sexual-risk behaviours, and attitudes supporting violence against women. Marginalised young people, such as those disengaged from mainstream education, are at greater risk of adverse effects.

The Gist is a pilot program, funded by the eSafety Commissioner and conducted in partnership with the Centre for Excellence in Rural Sexual Health, designed to help marginalised young people get accurate information on sex, consent and relationships.

The program includes a website, educational videos and in-person education sessions delivered at alternative schools and youth services across Victoria. Lead researcher Associate Professor Megan Lim said The Gist was providing a safe space for young people to learn about sex and relationships in a safe and respectful way, while helping them separate pornography from real life.

"There is a growing body of evidence showing that pornography is associated with a range of harms, including mental and sexual health problems," she said. "Through our research, we've found that young people have good factual knowledge about sex and are taught what not to do, such as avoiding unwanted pregnancies and sexually transmitted infections (STIs), but they aren't taught about what good, positive, pleasurable and consensual sexual relationships look like."

IMPACT

Young people demonstrated higher levels of knowledge about sexual health after participating in The Gist. The program saw an increase in participants' confidence in supporting a friend's unplanned pregnancy (from 64 per cent to 70 per cent after The Gist sessions) and a shift in recognising oral sex as real sex (from 56 per cent to 75 per cent post program). The program is now exploring funding options to expand beyond the pilot.

“

Through our research we've found that young people have good factual knowledge about sex and are taught what not to do, such as avoiding unwanted pregnancies and STIs, but they aren't taught about what good, positive, pleasurable and consensual sexual relationships look like.”

Associate Professor Megan Lim

Health Security and Pandemic Preparedness

Increasing health system capacities across our region

Malaria control in PNG: local evidence to drive improved strategies

Papua New Guinea (PNG) bears the burden of more than 85 per cent of malaria cases in the Western Pacific region. Tackling infection requires multiple interventions against mosquitoes, as well as continuous surveillance of malaria outbreaks, rapid diagnosis, monitoring of drug resistance and real-time tracking of emerging diseases.

Burnet's NATNAT program (Newly Adapted Tools and Network Against Mosquito-Borne Disease Transmission) works with the PNG Institute of Medical Research, the PNG National Department of Health, James Cook University, and Rotarians Against Malaria to rapidly evaluate new tools that kill or repel mosquitoes when they encounter treated areas, limiting their ability to bite and infect people.

Another program, STRIVE—Stronger Surveillance and Systems Support for Rapid Identification and Containment of Resurgent or Resistant Vector-Borne Pathogens—is strengthening the use of digital health information technologies, to support sub-national and health facility workers in the use of vector-borne disease data in decision-making scenarios. This strategy recognises that 85 per cent of PNG's population live in rural areas, and aligns with PNG's National Health Plan to 'leave no-one behind'.

IMPACT

NATNAT enabled the design, construction, and opening of the PNG Institute of Medical Research Belna Natnat Centre in 2023, including an entomology laboratory, insectary, and mosquito tunnel cage.

The NATNAT team also helped the national malaria control programme and New Ireland Provincial Health Authority to spray more than 1000 structures, achieving a coverage rate of more than 95 per cent.

STRIVE PNG supported Provincial Health Authorities to identify their strategic priorities in vector-borne disease surveillance and response, align these to national strategic plans, and co-develop surveillance and implementation research activities.

STRIVE also supported advocacy and training to strengthen provincial ownership of data and promote its use to improve decision-making.





Image: NATNAT Project Team leaders in the Belna NATNAT Centre’s new mosquito tunnel cage.

Research skills to improve health outcomes: SORT-IT PNG and Indonesia

The Structured Operational Research and Training Initiative (SORT-IT) teaches key health leaders in countries facing resource challenges practical skills to undertake and publish operational research related to their local health priorities.

This World Health Organization initiative assists countries to become “data-rich, information-rich and action-rich” by building local capacity to improve evidence-based healthcare delivery and outcomes.

Burnet and local partners worked with governments in Indonesia and Papua New Guinea—which bear some of the highest TB burdens in the world—to help mitigate and aid the fight against TB, including building research capacity through SORT-IT training.

Learning operational research skills using findings from their own clinical and public health programs increases the effectiveness of health leaders and equips them to improve their programs and policies based on local evidence. Participants also train in better data collection and analysis, and formulating an ethics submission.

The SORT-IT projects in PNG and Indonesia were implemented by Burnet Institute and funded by the Australian Government through the Indo-Pacific Centre for Health Security and the Medical Research Future Fund.

IMPACT

Many SORT-IT participants are healthcare workers or health programmers, and the training strengthens their research capabilities, giving them the tools to apply new knowledge and improve existing health programs.

The final module of the SORT-IT courses was held in 2023. It focused on data analysis and manuscript writing. Several papers have since been published in peer-reviewed open-access journals.

Addressing antimicrobial resistance, a top ten global health threat

Antimicrobial resistance (AMR) costs the world billions of dollars each year. In human health, it leads to increased medical costs, prolonged hospital stays and increased mortality. It negatively impacts animal health, economic development, food security and efforts to reduce poverty.

Burnet's responses to AMR includes working with a broad range of stakeholders in the Pacific, including human, animal and environmental health experts in Fiji, Kiribati, PNG, Samoa, Solomon Islands, and Vanuatu.

In PNG, Burnet is implementing the UK's Fleming Fund Country Grant with a range of partners and is working closely with national governments to ensure that all programming contributes to national health systems, strengthens and prioritises investment in public sector laboratories and surveillance systems, and supports the implementation of national action plans to tackle AMR.

IMPACT

The Fleming Fund project in PNG has been successful in progressing much needed renovation work at both human and animal health laboratories, installing state-of-the-art equipment, and providing essential training for staff. This has produced significant advances in the capacity of our laboratories for sampling and analysis, and has also resulted in PNG's first uploading of data to the World Health Organization Global Antimicrobial Resistance and Use Surveillance System (GLASS).

Technical working groups met regularly in 2023. In 2024, the team will begin a second phase of the program, which will expand the focus beyond human and animal health to include aquaculture and the environment, with cross-cutting themes of gender equity and cost-effectiveness.

In 2023, Burnet also supported PNG to develop its first national antimicrobial guidelines for human health.



The fund is a UK aid program across Africa and Asia to tackle AMR.

Maternal, Child and Adolescent Health

Reducing persistent inequities through evidence and solutions

Identifying drug candidates to prevent and manage preterm birth

The Accelerating Innovation for Mothers (AIM) project focuses on improving maternal and infant health and reducing deaths.

Through the project, researchers have identified several promising drug candidates for the prevention and management of spontaneous preterm birth, the leading cause of infant deaths globally.

Preterm newborns who survive are at greater risk of adverse health outcomes including chronic lung disease and neurological, visual, and auditory disabilities.

Through AIM, researchers analysed the drug development pipeline of medicines for preterm birth and compared them to target product profiles (TPPs) they developed for spontaneous preterm birth to identify the most promising drug candidates. TPPs describe the minimum and optimal characteristics of a target product aimed at a particular disease. The AIM team previously used this process to identify suitable drugs for preeclampsia, a leading cause of maternal deaths globally.

The identification of new drug candidates was a promising step forward for these life-threatening pregnancy-specific conditions that had seen little progress in research and development.

IMPACT

The AIM project is identifying innovative medicines, devices and diagnostics for pregnancy-specific conditions such as preeclampsia, preterm labour and birth, and impaired fetal growth in low- and middle-income countries to improve maternal and infant health and reduce deaths associated with these conditions. The AIM TPPs for preventing preterm birth, managing spontaneous labour, and preventing and treating pre-eclampsia have since been adopted by the World Health Organization, and are the only TPPs available for maternal drugs.

Antenatal and postnatal education needed for new mothers in PNG

Globally, 2.5 million babies die in the first 28 days of life each year, with most deaths occurring in low- and middle-income countries. A recent study of women during pregnancy and after childbirth in Papua New Guinea assessed the knowledge of newborn danger signs as defined by the World Health Organization. These signs may indicate severe sickness in a baby at birth or soon after, and their presence indicates a need for immediate healthcare.

Among the 638 women involved in the study, only 9.4 per cent knew three of the four essential newborn danger signs, and only one woman knew all four danger signs (using the Johns Hopkins University's Birth Preparedness and Complication Readiness Index). Low levels of knowledge of newborn danger signs among pregnant women and mothers with newborns may prevent women from seeking timely care for their newborns when needed, potentially increasing the risk of newborn death or serious illness.

The study was conducted as part of Burnet's Healthy Mothers Healthy Babies program, designed to improve reproductive, maternal, neonatal and child health outcomes in PNG.

IMPACT

The research highlights an urgent need for antenatal and postnatal education for women and their families in PNG, and policies that support enhanced education and decision-making, to help reduce newborn deaths and serious illness.



Image: A health worker in PNG checks on a child's development.

A longitudinal study on adolescent menstrual health in Bangladesh

Menstruation is a frequent, repeated experience, and the impact of difficulties related to it is likely to accumulate over time.

There are currently few reliable estimates of how menstrual health affects girls' lives and how their health needs change through adolescence.

The Adolescent Menstrual Experiences and Health Cohort (AMEHC) study is designed to fill this crucial gap by following a group of girls over four years and observing changes in their menstrual health needs and experiences.

This longitudinal study will allow us to identify how menstrual experiences and unmet needs impact on girls' education, physical, mental and reproductive health outcomes during adolescence.

The AMEHC study will generate the world's first dataset to quantify the impacts of menstrual health, and help to target age-appropriate education and cost-effective interventions.

IMPACT

The cohort launched in 2023 and enrolled 2016 adolescent girls who were starting Class Six (secondary school) within a representative sample of schools in a rural and an urban region in Khulna District, Bangladesh.

We began by surveying the girls and their guardians, and capturing the school's facilities and support.

Annual surveys of the girls, education data collected from schools, and school checklists are being used to capture their changing experiences and track the impact of menstrual health on their lives.

Throughout 2023, we also undertook an intensive 'sub-cohort' study with 400 menstruating girls from the cohort to help us understand specific additional research questions.

We surveyed them at two-month intervals to understand the variability in experiences over a shorter time span.

Burnet Diagnostics Initiative

Robust, reliable, reproducible diagnostics research

“ In diagnostics research, if you can't translate the innovation, the idea, the concept into a tangible product that can be used in health screening around the world, then you won't have the impact.”

Jennifer Barnes, Director, Office of Research Translation

From the outset, the aim of the Burnet Diagnostic Initiative (BDI) has been to capitalise on Burnet's expertise in diagnostics research and accelerate translation into market-ready products to improve access to high quality diagnostics. Point of care diagnostics play a critical role in improving timely access to quality care, particularly in rural, remote, and under-resourced communities, and there is an urgent need for the development of simple, low-cost tests that can be operated in the field without sophisticated health infrastructure.

During the past 15 years, Burnet has built a successful track record in the development of new diagnostics in the fields of HIV (human immunodeficiency virus), hepatitis E, COVID-19, and other infectious diseases. For those discoveries to have impact, they must be effectively translated into products that can be manufactured and distributed—reliably, cost-effectively, and in large numbers—to populations around the world. And the work of producing, distributing, and marketing those innovative products, not always but often, requires collaboration with commercial partners.

For that reason, the focus in recent years has been on ensuring that BDI has the systems in place to demonstrate the quality and rigour of its research, and share that research with potential commercial partners in such a way that they can quickly and confidently enter into partnerships and licensing agreements that will deliver those innovations to the market at pace.

In July 2023, after many months of work led by Director Jennifer Barnes, and Scientific Director Professor Heidi Drummer, BDI was awarded ISO 9001 certification, a globally recognised standard for quality management administered by the independent International Organization for Standardization (ISO).



Image: Senior Research Scientist Dr Elsie Williams in the BDI team ensures diagnostics research is conducted in a way that meets the highest international standards.

ISO 9001 certification confirms that an organisation has developed and embedded processes that enable its workforce to consistently deliver high quality products and services. In the case of BDI, this meant developing a highly detailed, online documentation system to record each step of the research process. As a result, all decisions and outcomes can be traced, confirmed and, if necessary, replicated. It guarantees a level of transparency and accountability that builds trust with partners and potential partners, and provides them with industry-aligned, collaboration-ready data.

“The easiest and most effective way to build trust is to produce well-documented, high quality, reproducible science,” Ms Barnes said. “It is also about sound strategy and transparency in product development. It is about being able to trace back to why a decision was made, evaluate the evidence that was discussed, in what meeting, what conclusion was reached, and who approved it.”

Already, the quality management system implemented by the BDI team has improved their capacity to work effectively with external partners. For example, while undertaking a fee-for-service clinical study in 2023, the team was able to provide the commissioning biotech company with restricted online access to results, streamlining an auditing process that previously would have required an onsite visit and days of trawling through researchers’ laboratory notebooks. And in a recent exploratory meeting with a potential commercial partner, the team was able to respond to a question instantly and comprehensively, simply by sharing a link to the relevant documentation.

“It’s that professionalism, that ability to respond quickly and confidently that makes the difference,” explained Ms Barnes. “The team and I aren’t second guessing ourselves because we know the relevant information has already been recorded to a standard we’re happy with.”

The system was developed in such a way that the requirement for documentation remains relatively light in the early stages of research, and becomes increasingly detailed as the work progresses towards translation. Twelve months down the track, the team is now looking to refine the system to ensure that it is as efficient and user-friendly as possible, while still supporting a high standard of accountability.

For now, the ISO 9001 applies only to BDI, but the systems and processes developed for the certification are being shared across Burnet. The standardisation and documentation of research work has flow on benefits, including creating a repository of text-based information that can be called upon for grant applications, proposal documents, clinical case studies and ethics enquiries.

“It saves us reinventing the wheel every time we produce one of these documents and it just lifts everyone’s work,” Ms Barnes said.

The Stellabody® Story

Accelerating research translation and magnifying impact

“ Researchers develop these extraordinary ideas. They sow the seeds of what could be. Then it takes an army of people with expertise in industry, regulations, manufacturing, and supply lines to get those ideas to people in need.”

Serina Cucuzza, Executive General Manager, Commercialisation
Innovation and Industry Partnerships

For many years, the Immune Therapies Group, led by Burnet’s internationally recognised immunologist Professor Mark Hogarth, has been investigating how antibodies, a natural product of the body’s immune system, can be harnessed to treat human disease. That work has reached new heights with the invention of the Stellabody® platform, a breakthrough technology that prompts antibodies to form hexameric clusters around their targets, dramatically improving their potency. In the laboratory, antibody therapeutics built with Stellabody® technology have proven to be up to 100 times more effective at destroying their targets than standard antibody therapeutics.

“Professor Hogarth’s group showed great vision in recognising the breadth of applications of their Stellabody® discovery”, explains Commercialisation, Innovation and Industry Partnerships (CIIP) Executive General Manager, Serina Cucuzza. “It’s rare to have a technology that can be so widely applied. This expands not only the potential for impact across many possible diseases/conditions, but also the potential for commercial success—which is something exciting about this project.”

Burnet is now progressing validation of the platform in preclinical models and with patient samples. Burnet has also been actively engaging with commercial antibody therapeutic developers around the globe to partner the patented technology to extend its use across a variety of diseases/conditions. The first of these partnerships was announced in 2023, with Burnet entering into a *Research Licence and Option Agreement* with European biopharma company, argenx. This partnership will help accelerate the potential of Stellabody® to revolutionise treatments for people living with cancer, inflammation and infectious disease.

The agreement with argenx was the first significant outcome of a much longer and ongoing collaboration between CIIP and the Immune Therapies Working Group. While the scientists pursued their lab discovery, the CIIP team undertook a range of crucial tasks to support the commercial imperatives of the Stellabody® project including business development, program operational support, and intellectual property (IP) strategy development.

“Global licensing agreements for platform-based technologies can often take 18 months or more to finalise because they are highly complex,” Ms Cucuzza said. “With the help of the right advisors, we were able to get this done within a year.”

At a very early stage, the CIIP team began reaching out to potential commercial partners, eliciting their feedback and reporting to the research team on details that would help make the platform industry-ready. In addition, CIIP provided IP and strategic advice to shape the validation and development program, which supports the foundations of a strong IP position. The Stellabody® IP consists of four patent ‘families’.

“It does involve a bit of sacrifice from the research team because they have to be very focused on the commercial considerations, in order to bring their technology to patients and the community, rather than having unlimited freedom to explore science,” said Ms Cucuzza. “It is a different way of working when you’re really committed to delivering a translational, patient, and community-focused output.”

Professor Hogarth, who is highly experienced in translational research and industry interaction, is an especially practised and empathetic collaborator for Ms Cucuzza and her team. This expertise benefits researchers, and hence the CIIP team are prioritising the delivery of a range of activities to help build those skills in the Burnet workforce.

Vale Pasquale ‘Pat’ LaManna OAM—a long-time supporter

The fundamental discovery science that underpinned the revolutionary Stellabody® platform was made possible by many philanthropic supporters, including the generosity of Pasquale ‘Pat’ LaManna OAM and Helen LaManna.

Pat and Helen began supporting the work of Professor Hogarth and his team in 2001. Over subsequent decades, their long-term commitment helped fund lab-based research into the roles played by immune cells, their receptors and their antibodies. It was this work that ultimately led to the development of a biotherapeutic platform which stands to transform how cancer, inflammation and infectious diseases are treated around the world.



The Burnet community was deeply saddened by Pat’s passing in February 2023.

“Pat was a man of great compassion and extraordinary energy. We all benefitted, not only from Pat and Helen’s support, but also from their belief and encouragement in working towards our goals,” says Professor Hogarth.

Helen and the LaManna family have graciously committed to continuing to support Burnet Institute in the years ahead.

Stellabody® also received a much needed funding boost in 2023 through the estate of the late Mrs Phyllis Ann Schumann. During her life, Phyllis was a member of the RAAF Nursing Service and had dedicated her life to serving her country and the health of others.

Key Publications

Disease Elimination

Dans MG, Piirainen H, Nguyen W, Khurana S, Mehra S, Razook Z, Geoghegan ND, Dawson AT, Das S, Schneider MP, Jonsdottir TK, Gabriela M, Gancheva MR, Tonkin CJ, Mollard V, Goodman CD, McFadden GI, Wilson DW, Rogers KL, Barry AE, Crabb BS, de Koning-Ward TF, Sleebs BE, Kursula I, Gilson PR.

Sulfonylpiperazine compounds prevent *Plasmodium falciparum* invasion of red blood cells through interference with actin-1/profilin dynamics.

PLoS Biol 21(4): e3002066.

Interpretation: Using reverse genetics, this study identified the first compound series interfering with a protein, actin-1/profilin, which the parasite *P. falciparum* uses to break into red blood cells, where it grows and reproduces, causing illness. The results pave the way for future antimalarial drug development, which is urgently required to tackle growing resistance to current malaria medicines.

Callander D, McManus H, Gray RT, Grulich AE, Carr A, Hoy J, Donovan B, Fairley CK, Holt M, Templeton DJ, Liaw ST, McMahon JH, Asselin J, Petoumenos K, Hellard M, Pedrana A, Elliott J, Keen P, Costello J, Keane R, Kaldor J, Stoové M*, Guy R*.

HIV treatment-as-prevention and its effect on incidence of HIV among cisgender gay, bisexual, and other men who have sex with men in Australia: a 10-year longitudinal cohort study.

Lancet HIV, 2023, April 10(6), e385-e393.

Interpretation: The study investigated whether HIV treatment-as-prevention could achieve population level reductions in incidence among gay, bisexual and other men who have sex with men (GBM) in New South Wales and Victoria, Australia. It found that a 1 per cent increase in population prevalence of viral suppression corresponded with a 6 per cent decrease in HIV incidence. The results suggest that, as a biomedical prevention strategy, treatment-as-prevention can achieve reductions in HIV incidence among GBM, but doing so requires very

high rates of HIV diagnosis and treatment uptake, including among subpopulations. These findings suggest that further investment in HIV treatment, especially alongside PrEP can improve public health by reducing HIV incidence among GBM.

*Co-senior authors

Colledge-Frisby S, Rathnayake K, Nielsen S, Mark Stoové, Maher L, Agius PA, Higgs P, Dietze P.

Injection Drug Use Frequency Before and After Take-Home Naloxone Training

JAMA Netw Open. 2023;6(8): e2327319.

Interpretation: This study of people who inject drugs found no evidence that take-home naloxone (THN) training and supply increased injecting frequency or other markers of overdose risk. The findings suggest that THN training should not be withheld because of concerns about risk compensation, and that advocacy for availability and uptake of THN is required to address opioid-associated mortality.

Health Security and Pandemic Preparedness

Majumdar SS, Islam S, Huang GKL, Morris L, Bauri M, Chan G, Kama G, Keam T, Peacock-Smith A, Finch S, Marukutira T, Bhatt S, Drewett G, Wratten M, Murray A, Pank N, Masah C, Bala R, Umali S, Kalon S, Greig J, Chani K, Kal M, Graham SM.

Contact screening and management in a high-transmission MDR-TB setting in Papua New Guinea: Progress, challenges and future directions.

Frontiers in Tropical Diseases Vol 3, 2023.

Interpretation: This study describes the specific considerations for household contact screening and management in high transmission MDR-TB settings including approaches for active TB detection, TB preventive treatment, community engagement and data systems. A high quality community-based model has been established in Daru, Papua New Guinea despite challenges. However, as ongoing transmission likely occurs outside the household, community-wide screening with the provision of TB preventive treatment based on testing for TB infection to include older children, adolescents, and young adults is proposed. Considerations for the design

of a comprehensive detect-treat-prevent approach and algorithm by age are outlined.

Win Han Oo, Nguyen XT, Ngo TVA, Ngo DT, Win Htike, Nilar Aye Tun, Kaung Myat Thu, Cutts J, Nguyen THP, May Chan Oo, Ei Phyu Htwe, Aung Khine Zaw, O'Flaherty K, Agius PA, Fowkes FJI.

Performance and feasibility of reactive surveillance and response strategies for malaria elimination in Vietnam: a mixed-methods study.

Malaria Journal 22, 229 (2023).

Interpretation: There was policy commitment for implementation of reactive surveillance and response strategies in Vietnam. The completeness and timeliness of case notification and case investigation were high and improved after the introduction of the electronic reporting system. More evidence is required for reactive case detection in defining the screening area or population.

Bell L, van Gemert C, Allard N, Brink A, Chan PL, Cowie B, Hellard M, Homer CSE, Howell J, O'Connor M, Hocking J.

Progress towards triple elimination of mother-to-child transmission of HIV, hepatitis B and syphilis in Pacific Island Countries and Territories: a systematic review.

The Lancet Regional Health Western Pacific, 35, 100740, 2023.

Interpretation: The findings show that none of the Pacific Island Countries and Territories are on track to achieve triple elimination of HIV, hepatitis B and syphilis by 2030. Among the limited publicly available indicator data, there is suboptimal coverage for most indicators. It is important that there is an increase in availability of and access to antenatal care, testing, and treatment for pregnant women. Increased efforts are needed to collect data on key indicators and integrate reporting into existing systems to avoid extra burden.

Maternal, Child and Adolescent Health

McDougall ARA, Hastie R, Goldstein M, Tuttle A, Ammerdorffer A, Gülmezoglu AM, Vogel JP.

New medicines for spontaneous preterm birth prevention and preterm labour management: landscape analysis of the medicine development pipeline.

BMC Pregnancy Childbirth. 2023 Jul 18;23(1):525.

Interpretation: This analysis provides a drug-agnostic approach to assessing the potential of candidate medicines for spontaneous preterm birth. Research should be prioritised for high-potential candidates that are most likely to meet the real world needs of women, babies, and healthcare professionals.

Davidson EM, Scoullar MJL, Peach E, Morgan CJ, Melepia P, Opi DH, Supsup H, Hezeri P, Philip W, Kabi D, Tokmun K, Suruka R, Fidelis R, Elijah A, Siba PM, Pomat W, Kombut B, Robinson LJ, Crabb BS, Kennedy E, Boeuf P, Simpson JA, Beeson JG, Fowkes FJI.

Quantifying differences in iron deficiency-attributable anemia during pregnancy and postpartum.

Cell Rep Med. 2023 Jul 18;4(7):101097.

Interpretation: Maternal anemia was highly prevalent in pregnancy and postpartum in this study population, with iron deficiency a major risk factor in pregnancy, but less so in the postpartum period. Iron supplementation provided both early during pregnancy and between pregnancies, in conjunction with malaria prevention strategies, could break the cycle of chronic anemia in women of reproductive age.

Ayuandini S, Habito M, Ellis S, Kennedy E, Akiyama M, Binder G, Nanwani S, Sitanggang M, Budiono N, Ramly AA, Humphries-Waa K, Azzopardi PS, Hennegan J.

Contemporary pathways to adolescent pregnancy in Indonesia: A qualitative investigation with adolescent girls in West Java and Central Sulawesi.

PLOS Glob Public Health 3(10): e0001700.

Interpretation: Findings suggest that reducing unintended adolescent pregnancy is a critical step toward eliminating child marriage. This includes attending to harmful gender norms, increasing girls' communication skills and agentic power in romantic relationships, engaging men and boys in critically examining gendered sexual scripts, and establishing more equal power dynamics in relationships. The study highlights many drivers of adolescent pregnancy in Indonesia, and the diversity of girls' lived realities. Participant pathways represented six different typologies, all of which may be best addressed by different intervention approaches.

Optimising HIV resources through mathematical models

Strategic allocation of resources is crucial in the ongoing fight against HIV/AIDS, and Burnet's work has played a pivotal role in modelling how to achieve meaningful outcomes to maximise impact.

Commissioned by the Global Fund and supported by UNAIDS, we have worked collaboratively with 12 Eastern European and Central Asian countries to optimise their HIV programs, identify potential inefficiencies, and provide evidence-based recommendations.

In 2023, we published our findings and recommendations in an overall regional report and 12 individual country reports. They complement the findings from previous allocative efficiency analyses conducted in the region in 2014 and 2019.

Head of Modelling and Biostatistics Associate Professor Nick Scott said the modelling provided national HIV teams with scientific evidence to navigate complex decisions.

"Our modelling identified the highest priority and most cost-effective programs to spend funding on," he said.

The analysis estimated optimised spending for the most recent total budget for HIV. The resulting most cost-effective mix of HIV programs could result in 35,900 (32 per cent) fewer new HIV infections from 2023 to 2030 in total across all 12 countries included in the analysis (Figure 1).

Burnet worked with each country to bring HIV data together on key demographic estimates, HIV prevalence, HIV-related deaths, new HIV infections, behavioural data, and care cascade estimates—which estimates how many people living with HIV are diagnosed, on treatment and virally suppressed.

National HIV teams provided Burnet with valuable insights into local contexts and enhanced the understanding of the available data, which increased the likelihood of Burnet's modelling being incorporated into policy.

"Projects like this are only successful because they are big collaborations," Associate Professor Scott said.

"Partnering with countries means we can answer the questions they are interested in, rather than the questions we're interested in, when we model scenarios.

"They help us define the programs in the model in ways that reflect the reality in each country."

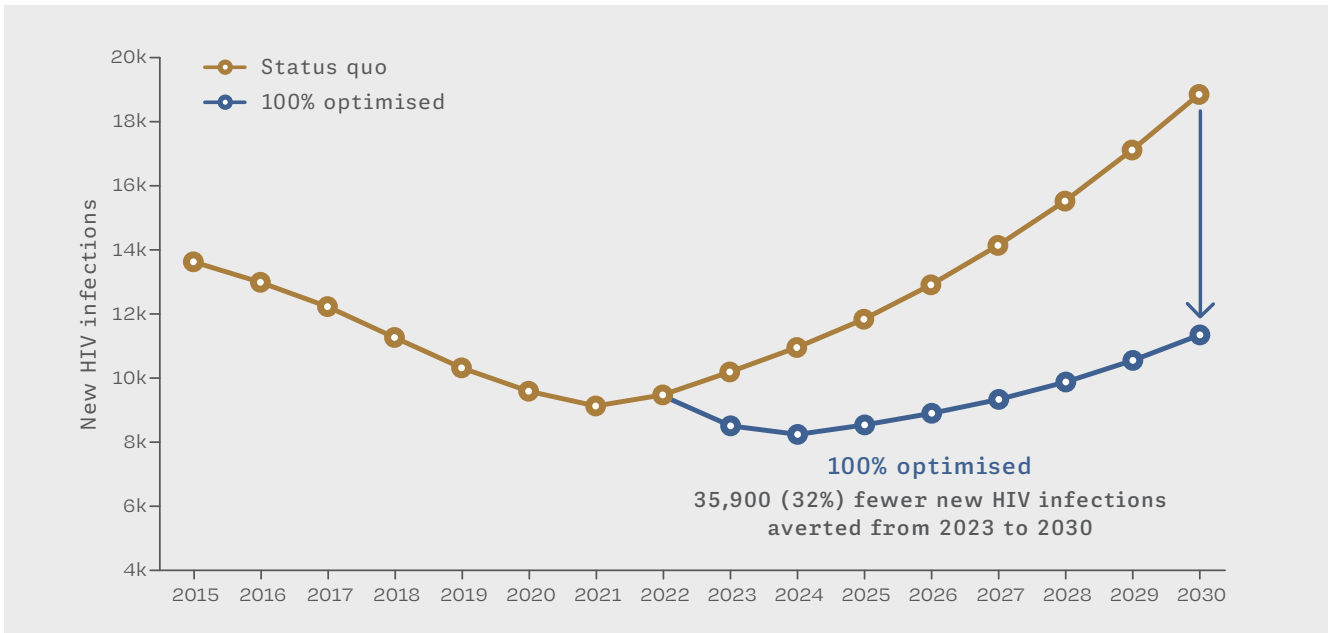


Figure 1. Estimated annual new HIV infections under the counterfactual baseline and 100% optimised spending scenario from 2015 to 2030 for the 12 countries included in this analysis.

In 2022, Burnet and teams from participating countries came together in Istanbul for a three-day training workshop, to build local capacity and discuss findings. This was the third workshop in the region, and participating teams from different countries were also trained on how to use the models to run the scenarios themselves.

Dr Besfort Kryeziu, from the National Institute of Public Health of Kosovo, said the event helped countries better adapt their HIV policies.

“For me as a young researcher, it was important to learn more about the tools and methodology behind the calculations of these estimates and to exchange information with other countries.”

Senior Researcher Dr Debra ten Brink, who coordinated the project, said the regional workshops highlighted the diversity of the HIV response in the region and allowed countries to compare data.

“One example is the cost of antiretrovirals, which were much higher in one country compared with the regional average, giving that country a reason to dig deeper into their cost breakdown,” she said.

“Country teams can use the scientific evidence that is generated to support their work, ensuring funding allocations are evidence-informed, and the HIV response is as impactful as possible,” Associate Professor Scott said.

The report *Allocation of HIV resources towards maximising the impact of funding in selected Eastern European and Central Asian Countries* was supported by the Global Fund and UNAIDS, and was prepared by Burnet Institute and Optima. The 12 participating countries that provided strategic and technical inputs are: Albania, Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kosovo, Kyrgyzstan, Moldova, Serbia, Tajikistan, and Uzbekistan.

View the full report: burnet.edu.au/EECAreport

EC Australia's partnership success

Eliminate Hepatitis C Australia (EC Australia) was formed by Burnet Institute in 2018 to coordinate efforts by researchers, community organisations, governments and health services to achieve the elimination of hepatitis C in Australia by 2030. One of EC Australia's aims is to engage priority groups within the community whose rates of testing and treatment are especially low. The successes of the partnership underline the key role of co-design in achieving public health outcomes.

For example, *It's Your Right*, a health promotion campaign co-designed to engage people who inject drugs with hepatitis C testing and treatment, was a ground-breaking success. *It's Your Right* used a peer-led approach from design to implementation, and worked in partnership with people with lived and living experience of injecting drug use and/or hepatitis C, through the Australian Injecting and Illicit Drug Users' League (AIVL) and its member organisations.

The co-design process led to vibrant, rights-based messages, and peer engagement strategies became the cornerstone of the campaign. Connecting people who inject drugs with a peer worker was identified as the best way to overcome stigma and to link users with a trusted health service that could provide hepatitis C testing and treatment.

“ We are really conscious that we've got strengths around data evaluation and surveillance, and that we can bring those to our partnerships. We also recognise that the community and health services we're working with all have their own strengths. That's what we're about: bringing that all together, working as partners, and seeing what we can do to improve our overall output.”

Dr Alisa Pedrana, Burnet's EC Australia Coordinator

Breakthrough impacts driven by co-design

The EC Australia partnership developed the *It's Your Right* website, as well as merchandise and a national program of advertising, and supported peer-led organisations in every state and territory to implement their own local campaigns.

“We made a decision to provide services with catalytic funding, giving them money to do what they know how to do best,” says Dr Alisa Pedrana, EC Australia Coordinator. “And we quickly realised it was a great approach, because we were getting really good feedback and really good outcomes.”

Local tactics included peer-led client outreach, community events, and financial incentives to encourage participation in testing and treatment. Data collected as part of the EC Australia evaluation endorsed the localised strategy, revealing that *It's Your Right* successfully linked people with a peer worker and engaged them in testing and referral to treatment.

In 2023, the team built on the lessons learned from the *It's Your Right* campaign to reach another group with disproportionate rates of hepatitis C and lower uptake of hepatitis C treatments: Aboriginal and Torres Strait Islander people.

"Aboriginal and Torres Strait Islander people are disproportionately affected by the burden of hepatitis C, and seven times more likely than non-Indigenous Australians to have a notification of hepatitis C," says Program Manager Troy Combo, underlining the need for a targeted campaign. "While we are acknowledged as a priority population in our own right in national and state hepatitis C strategies, we are also over-represented in other priority populations and settings. For example, 23 per cent of respondents in the latest Australian Needle and Syringe Program Survey identified as Aboriginal and/or Torres Strait Islander. And we're grossly over-represented within prisons, which we know is an independent risk factor for hepatitis C."

The new campaign *Every Yarn Counts* was co-designed by a national reference group consisting of members from the Aboriginal Community Controlled Health Sector. The membership included representation from the National Aboriginal Community Controlled Health Organisation (NACCHO), four of NACCHO's state affiliates and seven local Aboriginal health services.

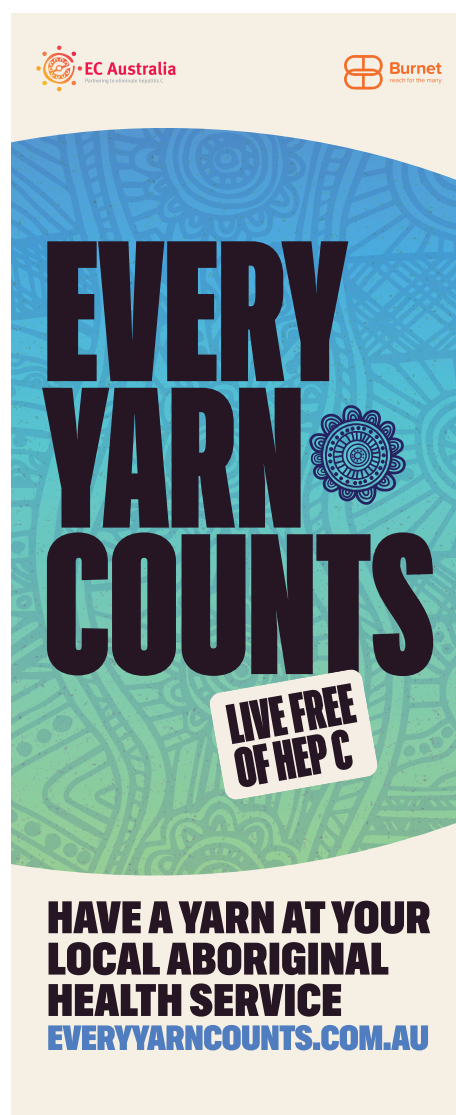
Reference group members provided key recommendations for engagement tactics and language choices. They also offered advice on how to ensure broad-based appeal across groups that were in some cases quite geographically and culturally distinct, for example developing palettes that reflected the Aboriginal flag, the Torres Strait Islander flag, and the rainbow flag of the LGBTQIA+ community.

EC Australia worked in partnership with the reference group to co-produce the campaign website, merchandise and training materials, and funded local services to implement the campaign in their own communities.

"The feedback from the *It's Your Right* evaluation showed that funding flexibility was really useful," says Emily Adamson, EC Australia's Health Promotion Program Manager.

Every Yarn Counts was launched in April 2024, and will be followed by a thorough evaluation of both the reach of the campaign, and the outcomes it generates around increasing community conversations about hepatitis C, as well as engaging people in hepatitis C testing and treatment.

Image: Campaign poster for *Every Yarn Counts* featuring bloodlines artwork by We are 27 Creative.



Expanding hepatitis C elimination—Mya Mya's story

Mya Mya* is a 27-year-old woman from Yangon, Myanmar, who injects drugs and lives with hepatitis C. Her story highlights the importance of hepatitis education, and free testing and treatment services for people who inject drugs, as part of the strategy to eliminate viral hepatitis in Myanmar.

Three years ago, Mya Mya realised she may have hepatitis C when her sister noticed her yellowing eyes, weight loss, poor sleep and vomiting—known symptoms of hepatitis C infection. She and her husband tested positive for hepatitis C, but they did not receive any educational support. Her husband lost his job because of his positive diagnosis.

They could not afford the cost of treatment in private clinics. When they found out treatment was available, they joined a long waitlist in a public facility. Meanwhile, Mya Mya continued to suffer from her symptoms and feared that her condition may cause liver scarring and advance to cirrhosis and liver cancer before she could access treatment.

“When I first realised I had hepatitis C, I sought treatment but found it was too costly. I didn’t want to burden my family with the cost of my treatment. So, I was unable to inform my family about my illness. I waited three years to receive hepatitis C care and treatment.”

In March 2023, Mya Mya heard about Burnet and Myanmar Liver Foundation’s project offering free hepatitis C testing and treatment services through a referral organisation. After receiving treatment from the clinic, she was able to sleep and eat normally and started to gain weight. She recently completed her treatment and now understands how to prevent re-infection.

“Even family members do not treat injecting drug users well and look down on us. At the Burnet clinic, healthcare workers treated me respectfully and listened carefully. I was able to ask my questions without fear or discomfort.”

Drawing on her personal experience, Mya Mya now works as a peer worker in Yangon supporting others to access hepatitis C testing and treatment.

**not her real name*

Image: A nurse explains to a patient about testing and treatment options for hepatitis C.



Staff Awards

Awards

Australian Academy of Health and Medical Sciences Mentorship Program

Professor Joseph Doyle and
Professor Joshua Vogel

Alastair Lucas Prize for Medical Research (Burnet Institute)

Dr Lindi Masson

Elizabeth Blackburn Investigator Grant Award (NHMRC)

Professor Caroline Homer AO

Frank Fenner Investigator Award (NHMRC)

Dr Tafi Marukutira

Fenner Award (Burnet Institute)

Professor Caroline Homer AO

Gust-McKenzie Award (Burnet Institute)

Professor Joshua Vogel

Snow Medical Research Foundation Fellowship

Associate Professor Michelle Boyle

Acknowledgement

The Australian's Special Report on Top 250 Researchers in Australia

Professor Caroline Homer AO

Travel Awards

Crockett-Murphy Travel Awards

Ruth Bala and Dr Win Htike

Domestic Travel Awards

Aimee Altermatt, Dr Coralie Boulet, Dr Brendan Harney, Dr Stephanie Munari, and Rachel Smith

Dora Lush Academic Excellence Award

Dr Michelle Scoullar

Gender Equity, Diversity and Inclusion Travel Fellowships

Dr Hayley Bullen and Dr Alisa Pedrana

Geoffrey Stewardson Travel Fellowship

Sarah Amir Hamzah

Harold Mitchell Foundation Postdoctoral Travel Fellowship

Dr Michael Curtis

Harold Mitchell Foundation Postgraduate Travel Fellowship

Dr Ellen Kearney

Hon Geoffrey Connard Travel Fellowship

Dr Annie McDougall and Clarissa Moreira

Margaret Harrison Parental Leave Award

Stephanie Levy

Miller Foundation Biomedical Research Awards

Dr Liriye Kurtovic and Dr Katherine O'Flaherty

Miller Foundation Public Health Awards

Emily Adamson and Jenny Cao

Pauline Speedy Biomedical Research Fellowship

Dulcie Lautu

Studying at Burnet

Equipping the next generation of scientists



Image, left to right: Kaitlin Pekin, Annie Tan, and Dr Raffi Gugasyan.

“

I really enjoyed being the student representative in 2023 alongside Kaitlin Pekin, and working with the student committee to try and bring back a more social and inclusive student experience to Burnet, especially after COVID-19 restrictions. I heard about research the other students were conducting across Burnet, and I was able to share these at external events with undergraduate students who were considering studying with us. A key takeaway to make the most of the student experience at Burnet is to just get involved—either with the various student committees or coming along to an organised event. Everyone is super lovely and welcoming, so it makes the daunting experience of researching alone a more enjoyable one.”

Annie Tan, PhD Candidate



9% increase in
student intake

76

Students

12

Honours
Students

20

Masters
Students

44

PhD
Students

A message from Dr Raffi Gugasyan

Chair of Education, Burnet Institute

At Burnet, we strive for success and an enriching academic environment—one that is dynamic, inclusive and collaborative. Central to this is ensuring our students can easily access the knowledge and resources they need to excel.

Our student-run mentoring program aligns mentees with a senior member of staff based on their research interests. It is a great initiative, as mentors can facilitate networking connections across the Institute, and share their valuable experience to help students navigate their career pathways.

Alongside professional development opportunities that prepare students for a rewarding research career, we also emphasise the importance of social networks. Each year the student representatives engage with various professional and social groups, organising key events throughout the academic calendar.

The annual Student Symposium is a wonderful showcase event and opportunity for our students to network and share important knowledge across the three research disciplines. This year, Honours, Masters and PhD students presented their research findings in the form of a three-minute thesis or a longer presentation.

We make every effort to ensure our students have a fruitful, enjoyable experience at Burnet while they complete their degrees and strive for academic excellence.

I extend my congratulations to our students for a productive and fulfilling 2023 and take this opportunity to wish them continued success.

Congratulations to our 2023 PhD awardees:



Dr Jessica Horton

Dr Ellen Kearny

Dr Joey McGregor

Dr Bupe Mwamba

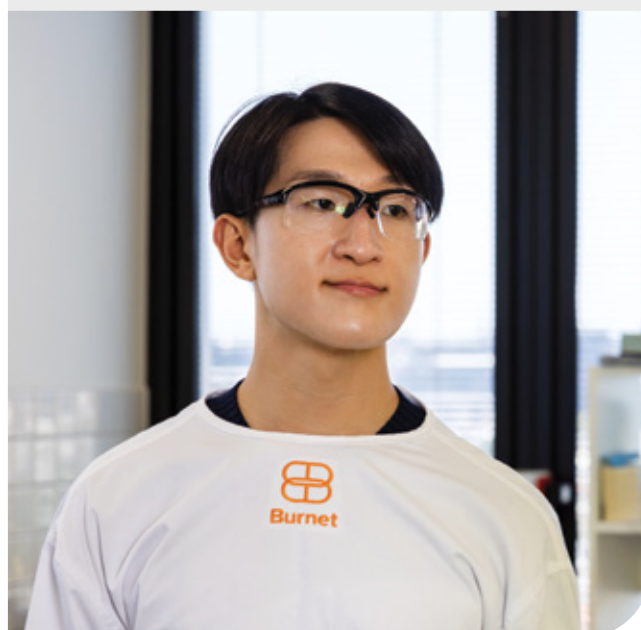
Dr Merryn Roe

Dr Sophia Schroeder

“

The best thing about being a student at Burnet Institute is the sense of student community and how supportive everyone is. This includes things like coffee runs with your fellow students, funding support for conferences and research exchanges, and the extensive technical and writing expertise you receive within your lab.”

Dawson Ling, PhD Candidate



Gender Equity

Embedding a gold-standard approach

In 2023, under the leadership of Professor Caroline Homer AO, Deputy Director of Gender Equity, Diversity and Inclusion (GEDI), Burnet resolved to embark on a process that would embed gold-standard gender equity practice across every aspect of the organisation's business, given equity is at the centre of our vision and purpose.

Diversity and Inclusion Manager Ella Shellshear was tasked with leading the work, beginning with a review of policies used by other organisations and the merging of two earlier Burnet policies. The work also included surveying Burnet's project managers to better understand their current approaches to matters of gender equity as well as their support needs.

"As a diversity and inclusion manager, I've never met leaders who said, 'I don't want to do anything for gender equity or disability inclusion,'" says Ella. "They are much more likely to ask, 'How do I do it?'. And at Burnet, it is even more so, as it's part of who we are."

The survey indicated that project managers were keen to enhance their understanding of incorporating and monitoring GEDI performance in ongoing research projects, as well as how to build it into the framework of future research cycles. It also showed that, while much of Burnet's work is centred around making progress towards a better, fairer, healthier world, there was significant variation in the extent to which new insights and meaningful breakthroughs in gender equity were being shared, either internally or with the wider community.

Informed and inspired by these findings, Caroline and Ella began to formulate a policy approach that would span three pillars:

- **Workplace Culture** – promoting gender equity across all aspects of the business including recruitment and professional development, and ensuring that gender considerations are integrated into decision-making processes at all levels.
- **Research and Development Work** – integrating gender perspectives into all projects and services with the ultimate aim of decreasing gender-based health disparities and improving health outcomes for all.
- **Advocacy and Communication** – highlighting the gender-specific challenges identified in Burnet's work, sharing success stories as they emerge, advocating for targeted interventions and policy change, and providing inclusive education and training opportunities.

The framework for the new *Gender Equity Policy Statement* was born and urged the team to progress with both the development of the policy, and a plan for implementation.

Caroline and Ella worked with our GEDI committee, which includes 22 representatives from all areas of the Institute. Meeting every two months, the committee, alongside numerous other stakeholders, incrementally refined the policy framework to facilitate the transformation of words into impactful and achievable actions. According to Ella, the development of a thousand little steps speeds progress towards a transformation that otherwise might feel impossible to achieve.

“It’s speedier and more inclusive,” she said of the iterative and collaborative approach. “We don’t tell people what to do. We work with them to decide on maybe two or three steps they can take—and not big ones. It takes time to reach agreement because we have lots of stakeholders but, in the end, they’re able to start implementing changes much sooner.”

The policy has had the endorsement and support of the Burnet board. Changes are already taking place. New guidelines have been developed to help reduce unconscious bias from recruitment processes. An independent intersectional pay gap analysis is underway. Onboarding processes are also being reviewed and updated.

“Onboarding sets you up for your time in an organisation. If it is well-developed, it lays a strong foundation right from the beginning,” Ella said.

Among the developments of which Caroline and Ella are most proud is Burnet’s decision to remove the distinction between primary and secondary carers, and to extend the timeframe for carer leave entitlements. Anecdotally, this has already seen some parents split their leave, enabling one parent to take time off immediately after a baby is born, and the other to schedule their leave to cover their partner’s return to work.

“We are the first medical research institute in Australia to drop the definitions for primary and secondary carers,” Ella said. “We’re very proud of that.”

The introduction of the *Gender Equity Policy Statement* has moved Burnet well beyond a compliance mindset—and the fact that changes are being supported and promoted by senior leaders in the organisation means that implementation is already well on the path to maturity.

The next challenge is the delivery of a detailed *Gender Equity Action Plan*. Currently in development, the plan will include targeted strategies and measures aimed at making gender equity a business as usual proposition, in line with the organisational values of respect, equality, inclusiveness, and diversity.



Image: Burnet’s diversity and inclusion leaders Ella Shellshear and Professor Caroline Homer AO.

“ Our journey towards gender equity is ongoing but, with the collective commitment, we are confident in our ability to drive meaningful change.”

Professor Caroline Homer AO, Deputy Director of Gender Equity, Diversity and Inclusion

Thank you for your support

Gifts of all shapes and sizes play a significant role at Burnet

Major Gifts

Many Burnet projects, laboratory equipment, awards, fellowships and scholarships have been supported by generous gifts from our supporters.

From the Space Race to a scholarship at Burnet

"As a child I vividly remember the excitement of the Space Race (competition between the United States and the Soviet Union to achieve superior spaceflight capability). I particularly remember space blankets, but also the introduction of cardiac monitoring. I became fascinated with all the advancements that science can bring," said Ruth Crutch of The Margaret and John Crutch Bequest.

This early interest in science led Ruth to study Physiology and Pharmacology at Monash University, after which she became a librarian in a Public Library in Port Phillip. She maintained a lifelong interest in science, and was especially interested in the exciting phase of discovery science. Her sister Beth was a research biochemist at Oxford University.

"I have long been aware that funding for discovery research is limited, so I decided that this would be the direction of my philanthropic support. I thought a Doctorate Scholarship was the best way to support discovery research. It was also a way of supporting women in science. I think Australia's female scientists are some of the best in the world, and I am proud to help them in any way I can."



Image: The Crutch family, from left to right: Ruth, John, Beth and Margaret Crutch.

Ruth's philanthropic interests and activity grew out of a strong family ethic of helping others. Her father, John, was the General Manager of Equity Trustees. He started out as a humble office boy and progressed to General Manager via Trust Officer and Accountant over a 50-year period, from 1939 to 1989. John knew the ethics of the business well. Philanthropy was his work, but also his inclination.

Ruth's mother was a nurse from Perth. She wanted to travel the world during her nursing career but only made it as far as Melbourne, where she met Ruth's father and started their family.

"The traditions in my family of serving the community have been strong, both in our working and private lives."

After a life spent working in the information field, a passion for discovery science, a family ethic of service to the community, and with no children of her own, it made sense to Ruth to begin making decisions about how her estate could best be used for philanthropic purposes.

On the passing of their parents, Ruth and her sister Beth inherited enough money to set up the Margaret and John Crutch Bequest under the guidance of Equity Trustees.

“ Now is the first time we have had the money to do long-term philanthropic giving. I'm pleased we have established the Margaret and John Crutch Bequest, in memory of our parents. A doctorate by its very nature is discovery research, and a full scholarship can remove some of the financial burden for these researchers, allowing them to focus on their scientific pursuits.”

Ruth Crutch

Remembering John Haasz (1947–2023): from refugee to philanthropist

John Haasz, a generous supporter of Burnet for many years, died unexpectedly in September 2023. We spoke to Peter Haasz, John's son, about his father's life, his commitment to philanthropy, and in particular what drew him to support medical research.

"Dad was a man of science. A scholar and a gentleman. He got a great deal out of life and gave much back. He helped his community, friends and family quietly, in thoughtful and practical ways," said Peter Haasz, in the eulogy for his father.

When John was just three years old, he and his parents, Márta and Frédi Haasz, escaped post-war Hungary as the Iron Curtain descended across Europe. They applied to various countries for entry as refugees and were accepted by Australia. Their first few years here were difficult, as was typical for new refugees, but they were kindly sponsored by a family in Camberwell in Victoria, where they began to settle into life in Australia.

At first, John's parents took up odd jobs to support the family. After a few months, they could afford to rent a semi-detached house in Camberwell. Eventually Márta established her own fashion business and Frédi opened a timber yard; both businesses prospered.

John did well academically. In 1963, at the age of 16, he graduated as Dux of Wesley College, in mathematics and sciences. He then accepted a scholarship to attend the Australian National University where he completed a Bachelor of Science with First Class Honours and was awarded the University Medal in Theoretical Physics. Despite his success in physics,

John was captivated by the emerging field of computing. This passion led him to a distinguished career—both in Australia and overseas—making his mark through highly technical projects, including developing a new programming language called Pogo, and by educating and mentoring others in the field.

John retired from the workforce in the late 1990s, and began to support various organisations in the arts, education and science, including Burnet.

Peter said that his father found great fulfilment in actively participating in the projects he supported. He loved learning from researchers about their work and lending his intellect to interesting problems. He was able to witness first hand the benefits of his philanthropic donations.



Image: John Haasz supported Burnet for many years.

“ Because Dad was a man of science, his involvement with Burnet was particularly significant, as Burnet bridges the gap between fundamental, evidence-based research and tangible, system-level improvements. It’s hard to find a better example of an organisation whose purpose aligned with Dad’s ethos, and I know he was strongly connected to Burnet’s mission and proud of Burnet’s work.”

Peter Haasz

Regular Giving

Thanks to our Research Action Partners, supporting health equity month by month.

“ We work month-by-month towards our broader goal of creating a healthier world, so it’s great to know our Research Action Partners are beside us every step of the way.”

Professor Brendan Crabb AC



Find out how you can support Burnet Institute's work by contacting us on (03) 8506 2401, emailing giving@burnet.edu.au or visiting our website burnet.edu.au

Fundraising Appeals

Thank you to everyone who supported our two major public fundraising appeals in 2023.



“ Thanks to everyone who supported this COVID vaccine research. It means a great deal to me that we have such dedicated supporters of our research initiatives. Your support makes our work possible.”

Dr Andy Poubourios

Developing a universal COVID vaccine

We are working to develop a universal vaccine effective against current and future variations of the SARS-CoV-2 virus, and other coronaviruses. Making an effective, cheap and stable COVID vaccine will improve access to the vaccine for people in low- and middle-income countries, where vaccination numbers remain low.

Donors have generously supported our COVID vaccine research at two points along the research pipeline: once in 2022 during the proof-of-concept stage, and again in 2023 for validation trials. The next step, which began in late 2023, is the preclinical trial phase.

Sending more babies home in Papua New Guinea

Our 2023 end-of-year fundraising appeal, in support of several Burnet Safe and Healthy Births initiatives in Papua New Guinea, was one of our most successful ever. Thank you to everyone who donated to this appeal.

Safe and Healthy Births initiatives which your support made possible include a smartphone app that provides healthcare workers with instant access to life-saving, evidence-based guidelines related to birth and pregnancy, as well as a new initiative designed to evaluate, benchmark, and improve the quality of intrapartum and early postnatal care in health facilities.

Image: Dr Delly Babona, (third from left) Lead Investigator of the Safe Delivery App Project with the Maternal and Child Health team at St Mary's Hospital Vunapope in Kokopo, PNG.



“ On behalf of myself and the Maternal and Child Health team in PNG, I offer my heartfelt thanks to everyone who supported the rollout of the Safe Delivery App in Papua New Guinea. Your support will make a huge difference, especially to rural health workers. It will empower them with quick access to crucial information for maternal and newborn care.” **Dr Delly Babona**

Gifts in Wills

Halina Strnad: A gift 80 years in the making

Born in Poland in 1930, Halina Strnad was the only child of secular Jewish parents, but the security of her childhood was shattered by the German invasion of Poland.

Separated from her father, Halina and her mother spent time in Auschwitz and Stutthof concentration camps, experiencing some of the darkest times in human history. Halina was one of the few to survive the atrocities of Stutthof. Neither her parents, nor any other relatives in Poland, survived. In 1949, at 19 years old, Halina migrated to Australia, where she met lifelong friend Michael Read and his family.

"Halina and her fellow Polish refugees were sponsored by a Christian religious group to holiday with farming families. One of these families was my own. That is how we came to know Halina. My parents, and then my own family, kept in touch with Halina and her Polish friends throughout her life," said Halina's friend Michael Read.

Halina dedicated her life to social justice, human rights, and science. Halina gained qualifications as a laboratory technician and went on to complete a Bachelor of Applied Science at university. She worked at The Alfred Hospital, and later at Dorevitch Laboratory, where she became familiar with Burnet's work.

She attended many Burnet lectures throughout her life. During a tour of the Burnet laboratories, she declared herself "impressed by the high standards of the place". She was a regular donor to Burnet for many years.

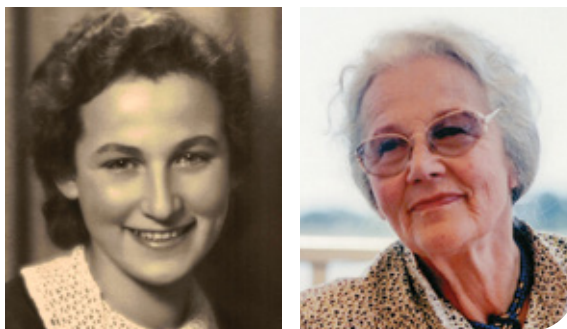
Halina's wartime experiences, and strong ethical values, led her to a life of deep involvement in community activities, becoming an active member of various organisations. With a group of friends, she formed Homeplus Living Inc, which provided housing for high school students who were at risk of homelessness. After one of Victoria's major bushfire events, she collected used books to restock damaged fringe-urban libraries.

Towards the end of her life, Halina wrote *The Testimony*, a book about her experiences of life in the concentration camps, and a reflection on her long and varied life after coming to Australia as a refugee. Her book is a message of hope, about choosing not to be a victim, and having faith in the goodness of humanity. As a dedication, she chose the following words taken from Aldous Huxley's *Texts and Pretexts* (1932):

"Experience is not what happens to you, it's what you do with what happens to you."

Michael said, "Halina died in 2022. Although she made no philanthropic bequests, she did leave my wife, Anne, and I as beneficiaries of her Will, with the suggestion that if we were inclined to provide grants to charities, we could consider Burnet."

Michael and Anne made a substantial donation to Burnet to honour Halina's life and support our *Safe and Healthy Births Programs* in Papua New Guinea. They are honoured to be part of keeping Halina's memory alive on through these life-changing programs that help mothers survive and babies thrive.



Images: Halina as a 19-year-old refugee; Halina in later years.

Vale Halina Strnad, 1930–2022

Leaving a lasting legacy

Leaving a gift in your Will can provide a lasting legacy to help advance medical research. We thank the following benefactors who graciously left a gift in their Will to Burnet. We hope their friends, family and loved ones take comfort in knowing their legacy will live on through our work.

We thank the following estates for their distribution to the Institute during 2023:

Mr Ian Bainbridge

Miss Elizabeth Butt OAM

Mrs June Cubbins

Ms Marjorie Hall

Mr Peter Moodie

Mrs Phyllis Schumann

Mr Roland Weeks

Mr Michael Zaar

And the following Trusts in Perpetuity that were distributed in 2023:

Thomas John Beresford Will Trust

The William and Georgena Bradshaw Charitable Trust

Joyce Adelaide Healey Charitable Trust Fund

Margo, Bonnie and Emma Perpetual Memorial Trust

Heather Margaret Phiddian Charitable Trust

Endowment Funds

The Burnet Institute Endowment Fund was established for donors to support our long-term objectives through a named sub-fund.

Alabaster Box of Precious Ointment

Margaret and Jim Beever Fellowship

Alastair Lucas Endowment Fund

The James O'Keefe Fund for PNG

Geoffrey J Stewardson Fund

Trusts and Foundations

Thank you to the charitable trusts and foundations that support us:

- Brennan Family Foundation
- Collie Foundation (managed by Equity Trustees)
- CSL
- D & X Williamson Family Charitable Fund
- Drakensberg Trust
- Estate of GWA Griffiths
- Guthrie Family Charitable Trust
- Harbig Family Foundation
- Harold Mitchell Foundation
- HMA Foundation Pty Ltd
- Hon Geoffrey Connard AM Travel Scholarship
- Jasper Foundation
- Joe White Bequest
- Lawrence Acland Foundation (managed by Perpetual)
- Marshall Fund (a charitable fund account of Lord Mayor's Charitable Foundation)
- Morrison Family Fund (a charitable fund of the Lord Mayor's Charitable Foundation)
- Naylor Stewart Foundation
- Percy Baxter Charitable Trust (managed Perpetual)
- The Baker Foundation
- The Harold & Cora Brennen Benevolent Trust (managed by Equity Trustees)
- The Ian Potter Foundation
- The Orloff Family Charitable Trust
- The Pat (OAM) and Helen La Manna Cancer/Stroke Research Legacy
- The Peter Leith Riddell Memorial (managed by Centenary Foundation)
- Upotipotpon Foundation
- Will and Dorothy Bailey Charitable Fund
- William Angliss Charitable Fund

In appreciation: Every supporter makes a difference

To everyone who donated to us in 2023 and was happy to be acknowledged by name, we thank you for your generous support.

We would also like to thank the many others who chose to remain anonymous. Your gifts continue to advance medical research and make a lasting impact on the health of communities in Australia and around the world.

A

Abraham, D & S
Ah Mouy, C
Allen, L
Allen, R
Anderson, D
Arthur, S
Athersmith, F

B

Bain, R
Baker, A
Barclay, M
Barker, J
Bedson, G
Bell, B
Boatman, A
Bock, F
Bomford, N
Bosse, W
Boughey, D
Boundy, M & M
Broad, S
Brown, N–Brown
Family Endowment
Budge, E
Bull, J
Byrne, D

C

Caldecotte, R
Calvert, B
Carlson, C
Carlsson, I
Carrangis, F & H
Cassidy, K

Castles, R & N
Cateris, S
Cehun, T
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Cherry, D
Chomley, G
Chong, L
Cleary, P
Collins, B
Connell, H
Connors, I
Cook, B & J
Copolov, D
Coppock, L
Corr, C
Coxhead, W
Crabb, V & R
Cross, M
Crowe, S & Mills, J
Crutch, G–Margaret
and John Crutch
Bequest

D

Daly, R & C
Darcy, J
Davey, L
Davie, A
Davies, D
Deakin, M
Deutscher, K & J
Devenish, B
Dexter, M
Di Paola, G
Dias, L
Douglas, C

Dwyer, J
Dyer, S

E

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Eather, H
Ebner, J
Eckersley, V
Edwards, D
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Elliott, W
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J

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Jones, R
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Kerin, P & M
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Lush/Harper Family

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Stapleton, C
Steptoe, G
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Stewart, H
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Turnbull, D
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Webster, G
Weickhardt, P
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White, M
Williams, D
Willis, P
Willsher, K
Wilson, G
Wilson, S & M
Witham, D
Wollaston, D
Wood, F & A
Wood, R
Wootton, T

Y

Yeung, D

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Zeidler, R

Financial Report

Financial Summary

In 2023, the Institute spent AUD\$79.3m on improving health in Australia and globally for a more equitable world.

Basis of Preparation

The Consolidated Statement of Financial Position and Consolidated Statement of Profit or Loss in this section were extracted from the audited general purpose financial statements of the consolidated operations of Burnet Institute (“the Summary Financial Statements”). The Summary Financial Statements do not include all the information and notes normally included in the primary financial statements.

The statutory financial report (from which the summary financial information has been extracted) was prepared in accordance with Australian Accounting Standards—Simplified Disclosures Framework adopted by the Australian Accounting Standards Board (AASB) and the Australian Council for International Development Code of Conduct and the Australian Charities and Not-for-Profit Commission Regulations. The Audited Financial Report was approved by the Board of Directors on 23 April 2024.

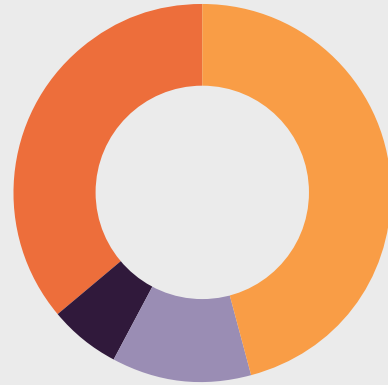
Operating Result and State of Affairs

The Group recorded a surplus in the current year of \$12.4m (2022: deficit \$25.5m). The Group’s operating performance for the year was significantly impacted by the performance of the Investment Fund, which had a positive net return of \$33.2m. This was represented by a \$20.4m write-up on the value of its investments portfolio (fair value mark to market movement at 31 December 2023) and by \$12.8m from interest and dividends received during the year. The Board endorsed investment strategy aims to achieve returns of CPI plus 4% over the medium to long term (5-7 years). Investment decisions are overseen by the Investment Committee, managed by Morgan Stanley and strategies are continually evaluated. Aside from the performance of the Investment Fund, the Institute’s performance was favourable compared to budget. Depreciation and amortisation increased relative to the prior year, which amounted to \$4.8m (2022: \$4.6m).

Other than for Biopoint Hong Kong Ltd, income tax is not applicable.

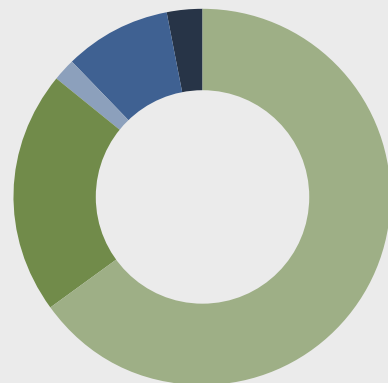
There were no significant changes in the Group’s State of Affairs that occurred during the calendar year, other than those referred to elsewhere in this report.

Income 2023



- Competitive Grants/Contracts: **46%**
- Operational Infrastructure: **12%**
- Fundraising: **6%**
- Investments: **36%**

Expenditure 2023



- Research/Health Programs: **65%**
- Facilities & Administration: **21%**
- Business Development: **9%**
- Depreciation/other: **3%**
- Fundraising: **2%**

For a full copy of the 2023 audited general purpose Financial Report, please contact Burnet Institute.

Consolidated Statement of Profit or Loss and Other Comprehensive Income

(For the year ended 31 December)

	Note	2023 \$'000	2022 \$'000
Revenue from continuing operations	3	58,315	57,377
Other income	3	157	1,131
Total Revenue and Other Income		58,472	58,508
Research and development laboratory consumables		(1,752)	(1,978)
Patents and licences		(1,121)	(564)
Personnel expenses	4	(42,176)	(34,470)
Depreciation and amortisation	11	(980)	(1,018)
Depreciation and amortisation – Right of use asset		(3,788)	(3,599)
External collaborating partner expenses		(10,816)	(14,212)
Overseas projects		(7,927)	(7,785)
Facility maintenance		(3,499)	(2,740)
Travel and accommodation		(2,734)	(1,819)
Other general administration expenses		(2,856)	(4,743)
Net (Deficit)/Surplus from Operations		(19,177)	(14,420)
Finance Income/(Loss)	3	33,183	(9,267)
Finance Expense - Lease Interest expense	13	(1,663)	(1,841)
Net Finance Income/(Costs)		31,520	(11,108)
Net Surplus/(Deficit) before income tax		12,343	(25,528)
Income tax expense	1.0	-	-
Surplus/(Deficit) After Income Tax		12,343	(25,528)
Surplus/(Deficit) After Income Tax Attributable to:			
Members of the Company		12,359	(25,356)
Non-controlling interests		(16)	(172)
Surplus/(Deficit) After Income Tax		12,343	(25,528)
Other Comprehensive Income			
Foreign currency translation differences – foreign operations		98	65
Total Comprehensive Surplus/(Deficit) for the Period		12,441	(25,463)
Total Comprehensive Surplus/(Deficit) Attributable to:			
Members of the Company		12,420	(25,477)
Non-controlling interests		21	14
Total Comprehensive Surplus/(Deficit) for the Period		12,441	(25,463)

The Consolidated Statement of Profit or Loss and Other Comprehensive Income is to be read in conjunction with the Notes to the Consolidated Financial Statements set out on pages 13 to 35 in the audited Financial Report.

The Group's total comprehensive surplus for the period includes the International Programs deficit of \$2,513,000 (2022: deficit of \$1,286,000) and Domestic and other programs surplus of \$14,954,000 (2022: deficit of \$24,177,000). Refer to the Group's International Activities Operating Statement on page 49.

Consolidated Statement of Financial Position

(As at 31 December)

	Note	2023 \$'000	2022 \$'000
Current Assets			
Cash and cash equivalents		7,264	7,954
Trade and other receivables	6	6,923	4,968
Other Assets	7	1,425	439
Lease receivables	8	603	554
Financial assets	9	317,254	308,493
Total Current Assets		333,469	322,408
Non-Current Assets			
Lease receivables	8	3,859	4,462
Financial assets	9	56,869	52,579
Right of use asset	10	40,062	43,191
Property, plant and equipment	11	4,923	4,052
Total Non-Current Assets		105,713	104,284
Total Assets		439,182	426,692
Current Liabilities			
Trade and other payables		2,663	1,901
Current tax liabilities	12	86	9
Lease liabilities and borrowings	13	2,825	2,355
Provisions	14	6,079	5,519
Deferred income - contract liability	15	30,911	29,806
Total Current Liabilities		42,564	39,590
Non-Current Liabilities			
Lease liabilities and borrowings	13	43,594	45,944
Provisions	14	892	807
Right of use liability	16	3,959	4,619
Total Non-Current Liabilities		48,445	51,370
Total Liabilities		91,009	90,960
Net Assets		348,173	335,732
Equity			
Retained surplus / (deficit)		349,471	337,112
Foreign Currency Translation Reserve		110	12
Non-controlling interests	20	(1,408)	(1,392)
Total Equity		348,173	335,732

The Consolidated Statement of Financial Position is to be read in conjunction with the Notes to the Consolidated Financial Statements set out on pages 13 to 35 in the audited Financial Report.

The Macfarlane Burnet Institute for Medical Research and Public Health Limited is a signatory to the Australian Council for International Development (ACFID) Code of Conduct. The Code requires members to meet high standards of corporate governance, public accountability, and financial management.

Burnet Institute International Development Activities Operating Statement

(For the year ended 31 December)

	2023 \$'000	2022 \$'000
Revenue		
Donations and gifts – monetary	448	451
Donations and gifts – non-monetary	–	–
Bequests and legacies	–	–
Grants:		
• DFAT	8,877	9,792
• Other Australian	3,430	2,486
• Other Overseas	11,585	10,161
Investment Income	–	–
Commercial Activities Income	–	–
Other Income	2,505	2,010
Revenue for international political or religious proselytisation programs	–	–
Total Revenue	26,845	24,900
Expenditure		
International aid and development programs expenditure		
International programs:		
• Funds to international programs	27,157	24,183
• Program support costs	1,506	1,105
Community education	–	–
Fundraising costs:		
• Public	112	68
• Government, multilaterals and private	–	–
Accountability and administration	583	554
Non-monetary expenditure	–	–
Total international aid and development programs expenditure	29,358	25,910
Expenditure for international political or religious proselytisation programs	–	–
Domestic programs expenditure	–	276
Commercial Activities Expenditure	–	–
Other Expenditure	–	–
Total Expenditure	29,358	26,186
(Shortfall)/Excess of revenue over expenditure	(2,513)	(1,286)
Other Comprehensive Income	–	–
Total Comprehensive Income	(2,513)	(1,286)

Notes: This operating statement represents IFRS financial information and is extracted specifically for the operations of the International Health Programs as required by the ACFID Code of Conduct. The deficit represents the Institute's additional financial contribution to the programs.



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The Macfarlane Burnet Institute for Medical Research and Public Health Limited is a signatory to the Australian Council for International Development Code of Conduct. The Code requires members to meet high standards of corporate governance, public accountability and financial management. These financial statements have been prepared in accordance with the requirements set out in the ACFID code of conduct. More information about the ACFID Code of Conduct can be obtained from ACFID.



Independent Auditor's Report

To the members of Macfarlane Burnet Institute for Medical Research and Public Health Ltd

Report on the Summary Financial Statements

Opinion

We report on the **Summary Financial Statements** of Macfarlane Burnet Institute for Medical Research and Public Health Ltd (*the Group*) as at and for the year ended 31 December 2023. The Summary Financial Statements are derived from the audited financial report of the **Group** (the Audited Financial Report).

In our opinion, the accompanying Summary Financial Statements of Macfarlane Burnet Institute for Medical Research and Public Health Ltd are consistent, in all material respects, with the Audited Financial Report, in accordance with the basis of preparation described on page 46 to the Summary Financial Statements.

The **Summary Financial Statements** comprise:

- Consolidated statement of financial position as at 31 December 2023
- Consolidated statement of profit or loss and other comprehensive income for the year then ended
- Burnet Institute International Development Activities Operating Statement for the year ended 31 December 2023

The Summary Financial Statements are contained in the *2023 Annual Report* on pages 47 to 49.

The Group consists of Macfarlane Burnet Institute for Medical Research and Public Health Ltd (the Company) and the entities it controlled at the year end or from time to time during the financial year.

Scope of the Summary Financial Statements

The Summary Financial Statements do not contain all the disclosures required by *Australian Accounting Standards (AAS) - adopted by the Australian Accounting Standards Board (AASB) and the Australian Charities and Not-for-Profit Commission Act 2012* applied in the preparation of the Audited Financial Report. Reading the Summary Financial Statements and this Auditor's Report thereon, therefore, is not a substitute for reading the Audited Financial Report and our auditor's report thereon.

The Summary Financial Statements and the Audited Financial Report do not reflect the effects of events that occurred subsequent to the date of our auditor's report on the Audited Financial Report.

We are independent of the Group in accordance with the auditor independence requirements of the ACNC Act 2012 and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 Code of Ethics for Professional Accountants (including Independence Standards) (the Code) that are relevant to our audit of the Financial Report in Australia. We have fulfilled our other ethical responsibilities in accordance with these requirements.

The Audited Financial Report and our auditor's report thereon

We expressed an unmodified audit opinion on the Audited Financial Report in our auditor's report dated 23 April 2024.

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Emphasis of matter – basis of preparation and restriction on use and distribution

We draw attention to page 46 of the Summary Financial Statements, which describes the basis of preparation.

The Summary Financial Statements have been prepared to assist the Directors of Macfarlane Burnet Institute for Medical Research and Public Health Ltd for the purpose of complying with the presentation and disclosure requirements set out in the Australian Council for International Development (ACFID) Code of Conduct. As a result, the Summary Financial Statements and this Auditor's Report may not be suitable for another purpose. Our opinion is not modified in respect of this matter.

This Auditor's Report is intended solely for the *Directors* of Macfarlane Burnet Institute for Medical Research and Public Health Ltd and should not be used by or distributed to parties other than the *Directors* of Macfarlane Burnet Institute for Medical Research and Public Health Ltd. We disclaim any assumption of responsibility for any reliance on this Auditor's Report, or on the Summary Financial Statements to which it relates, to any person other than the *Directors* of Macfarlane Burnet Institute for Medical Research and Public Health Ltd or for any other purpose than that for which it was prepared.

Other Information

Other Information is financial and non-financial information in Macfarlane Burnet Institute for Medical Research and Public Health Ltd's 2023 Financial Report which is provided in addition to the Summary Financial Statements and this Auditor's Report. The Directors are responsible for the Other Information.

Our opinion on the Summary Financial Statements does not cover the Other Information and, accordingly, we do not express an audit opinion or any form of assurance conclusion thereon, with the exception of the ACFID Financial Statements and our related assurance opinions.

In connection with our audit of the Summary Financial Statements, our responsibility is to read the Other Information. In doing so, we consider whether the Other Information is materially inconsistent with the Summary Financial Statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

We are required to report if we conclude that there is a material misstatement of this Other Information, and based on the work we have performed on the Other Information that we obtained prior to the date of this Auditor's Report we have nothing to report.

Responsibility of the Directors for the Summary Financial Statements

The Directors are responsible for the preparation of the Summary Financial Statements in accordance with the basis of preparation described on page 45 to the Summary Financial Statements, including their derivation from the Audited Financial Report of the Group as at and for the year ended 31 December 2023.

Auditor's responsibility for the Summary Financial Statements

Our responsibility is to express an opinion on whether the Summary Financial Statements are consistent, in all material respects, with the Audited Financial Report based on our procedures, which were conducted in accordance with *Australian Auditing Standard ASA 810 Engagements to Report on Summary Financial Statements*.

KPMG

KPMG

Antoni Cinanni
Partner

7 May 2024

Excellence. Innovation. Impact.

The Macfarlane Burnet Institute for Medical Research and Public Health Ltd (Burnet Institute) gratefully acknowledges funds received from the Victorian Government principally under its Operational Infrastructure Support Program, and from the Australian Government principally through the Department of Foreign Affairs and Trade, and the National Health and Medical Research Council.

Burnet places accountability at the forefront of our work and upholds the highest standards of practice. We are an active member of the Australian Council for International Development (ACFID) and are committed to full adherence to the ACFID Code of Conduct. Information about how to make a complaint on any breach of conduct can be found at www.acfid.asn.au.

We take all complaints seriously and will handle them in a timely and sensitive manner, protecting the privacy of stakeholders. Complaints should be made by calling +61 3 9282 2111, emailing feedback@burnet.edu.au or in writing to Chief of Staff, Burnet Institute, GPO Box 2284, Melbourne 3001.

People in local communities are at the centre of our work. Burnet has an organisational Safeguarding Code of Conduct with a strong commitment to child safeguarding and the prevention of sexual exploitation, harassment and abuse, to ensure the wellbeing of our local partners and community members are always our priority.

Burnet Institute is a member of the Association of Australian Medical Research Institutes (AAMRI), the peak body representing Australia's pre-eminent independent medical research institutes. All members of AAMRI are internationally recognised as leaders in health and medical research. Burnet is fully accredited by the Australian Government's Department of Foreign Affairs and Trade. This status represents the Australian Government's confidence in our organisational effectiveness, governance and development programs.

A full copy of the Financial Report is available on our website. Alternatively, for a printed copy, please call +61 3 9282 2111. The Financial Report has been prepared in accordance with the requirements set out in the *Corporations Act, 2001* and the ACFID Code of Conduct.

Auditors:

KPMG.

Partner:

Antoni Cinanni. Registered Company Auditor, 727 Collins Street, Melbourne VIC 3008.

For more information about our work, visit burnet.edu.au or call +61 3 9282 2111



Patron-in-Chief:

Her Excellency Professor the Honourable Margaret Gardner AC, Governor of Victoria

Director and CEO:

Professor Brendan Crabb AC, PhD, FAA, FAHMS, FASM

Deputy Directors:

Professor James Beeson, MBBS, PhD

Professor Margaret Hellard AM, MBBS, PhD

Professor Caroline Homer AO, MNurs, PhD, MMedSc

Chad Hughes, BSc (Biomed), MPH

Company Secretary:

Peter Spiller, BBus, CPA

ABN 49 007 349 984

Annual Report Editorial and Creative Team:

Christine Elmer, Samantha De Gail, Valya Hooi, Lulu Mason, Margarita Paguio (editorial manager), Tasha Wibawa, and The Friday Collective.

Design:

Made Visual.

Photographs:

BlueTree Studios, Heckler Studios, Lynton Crabb, Maung Aye Chan (Tamar Film), Poreni Utau, Gina Ishmael (at the Vanuatu Family Health Association Antenatal Clinic), Burnet staff.

Other photos supplied by partners and supporters.

Persons featured in photographs throughout this annual report provided their express written or verbal consent for their image to be captured and used by Burnet Institute. In the case of children and adolescents who are featured, consent was provided by the parent and/or guardian.

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OVERSEAS

Burnet has offices or representatives in Australia, Papua New Guinea and Myanmar, and also contributes to research and public health programs in many other countries across Asia, the Pacific, Africa, Europe, and North America.

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