



Annual Report

2021



A more equitable
world through
better health



Burnet Institute
Medical Research. Practical Action.



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At Burnet Institute, we proudly acknowledge the Boon Wurrung people of the Kulin Nations as the Traditional Owners of the land on which our office is located and recognise their continuing connection to land, waters and community. We acknowledge Aboriginal and Torres Strait Islander peoples as Australia's First Peoples and acknowledge that sovereignty was never ceded. We pay our respect to Elders past and present, and extend that respect to all First Nations people.





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 other Asian, Pacific and African countries.

Chair's Message



Mary Padbury

Ms Mary Padbury

Chair
BA, LLB(Hons)

Chair of Burnet Institute from 2019. Director since 2011. Chair, People and Culture Committee. Director, Commonwealth Bank of Australia. Director, Brandenburg Ensemble Limited. Former Chair of Ashurst Australia and Trans-Tasman IP Attorneys Board.

The COVID-19 pandemic has continued to challenge all of us in the past year. I am very proud of the way Burnet scientists have stepped up to meet the needs of government and community to help frame the response. This has included our participation in the national conversation on the best way to live with and manage the virus and its variants.

Burnet has contributed through laboratory-focused research into vaccines and rapid diagnostics, modelling and work to understand community behaviour in responding to lockdowns and other public health measures, as well as significant media engagement to encourage a rational science-based response to the array of issues thrown up by the pandemic. This has been led in particular by our Director and CEO, Professor Brendan Crabb AC. Our people have made and continue to make extraordinary contributions, including in difficult circumstances in Australia, Papua New Guinea and Myanmar.

Burnet is in a much stronger financial position following the sale of its building assets in 2020 and, more recently, the disposal of our shareholding in 360biolabs to BioAgilytix, a leading global contract research laboratory. 360biolabs developed from our Immuno-Monitoring Facility (IMF) set up in 2015 and expanded through a merger with ex-Biota staff. It rapidly developed to become one of the leading companies in the region, undertaking contract work for a range of research and pharmaceutical organisations. Our strategic investment in establishing the IMF has led to an extremely positive and significant outcome and is a credit to the vision and hard work of all involved including our Board.

This, together with Burnet's role in the establishment of the Australian Institute for Infectious Disease announced by the Victorian Government in late 2020, which will include relocation to a new facility in the Melbourne Biomedical Precinct, places Burnet in its strongest position since its inception 35 years ago. Most particularly, these developments will enable us to further our purpose and invest strategically across our key programmatic areas in line with our recently settled 2030 Strategic Plan.

Thank you to our many donors who continue to support the Institute's work, and to all our people for their incredible skill, commitment and contributions over the past year, led so ably by Brendan and the Executive team.



Burnet co-founded 360biolabs with Innoviron Pty Ltd in 2015 to meet the growing need for high-quality clinical trial support, backed by world-class virology and immunology expertise and cutting-edge technology. This advantage led to global requests for antiviral testing and clinical trial support. The team's wealth of knowledge ensured it could supply the robust and reliable data required by the medical technology and pharmaceutical sectors for pre-clinical and clinical research.

In early 2020, 360biolabs was Australia's most comprehensive specialty laboratory services organisation for therapeutic, vaccine and diagnostic development. 360biolabs was Australia's only International Organization for Standardization-accredited clinical services organisation working with SARS-CoV-2, leading it to conduct the first Australian COVID-19 clinical vaccine trials.

The sale of 360biolabs in 2021 is a testament to Burnet's forward thinking and exemplary immunology and virology research, which enabled 360biolabs to lead the translation of research into future medicines and solutions.

Director's Message



B Crabb

Professor Brendan Crabb AC

Director and Chief Executive Officer
PhD, FAA, FAHMS, FASM

Director and CEO since 2008. Chair of the Pacific Friends of Global Health. Chair of VicAAMRI. Member of National Health and Medical Research Council (NHMRC) of Australia. Member, mRNA Victoria Scientific Advisory Group.

Australia, along with the rest of the world, continued to face significant challenges due to the COVID-19 pandemic in 2021. Unlike many countries, Australia has responded in the main using science and public health expertise to help guide decision-making. We are now living in a changed world, where issues that were once foreign have become a new 'normal', and we are having to adapt to new ways of thinking, living, and working.

Burnet's contribution to the local and national pandemic response both from a laboratory research and public health perspective has been nothing short of outstanding, and I'm grateful to the many people at the Institute who have gone way beyond what was expected to provide their expertise and support.

In addition to the pandemic, in the last 12 months, we have faced unprecedented levels of climate-related disasters in the forms of heat, drought, storms, flood and fire, which signpost an unpredictable and challenging future for us all. Many environmental and climate-related health issues, while anticipated, are now becoming apparent, such as changing infectious disease patterns, especially more frequent zoonotic events (the basis of pandemics) and mosquito-borne diseases, food security threats, and mental health issues, with increased poverty, disruption and forced migration likely major consequences in the coming decades. These changes to our global ecosystem will require organisations such as Burnet and the newly formed Australian Institute for Infectious Disease to work through new strategies that provide solutions to existing but compounding issues. We are fortunate to be in a strong position that will help to support and grow not only our current programs of work, but through our new strategic plan Burnet 2030, provide opportunity to respond to these other pressing global health concerns.

I'm very pleased that over the past 12 months the Institute has developed and is now starting to implement its Reconciliation Action Plan. Burnet is committed to ensuring a culturally safe workplace that honours and celebrates Aboriginal and Torres Strait Islander cultures, histories, knowledge and rights. This plan seeks to encourage mutual learning, respect the right to self-determination, and create opportunities for capacity building within our sphere of influence. The work of our gender equity, diversity and inclusion committee has auspiced this process, and in this and other ways continues to help transform our organisation for the better.

Despite the challenges of the past year, Burnet has continued to excel across all its programs. I'm grateful to the staff and donors for their contributions and commitment, and to our Chair, Mary Padbury and the Board of Directors for their encouragement and support.

Australian Institute for Infectious Disease

Long before COVID-19, the vision for an Australian centre of excellence for infectious disease was born. At the start of the pandemic, the foundation partners Burnet Institute, the Doherty Institute and The University of Melbourne, with funding from the Victorian Government, established the Australian Institute for Infectious Disease (AIID).

The impetus for the AIID has always been to protect Australia and the wider Asia-Pacific region against major global health issues and pandemics by maximising the strength of partners and providing enhanced capabilities across research and its translation, public health, and education.

The AIID visionary initiative will also deliver a new purpose-built facility in the Melbourne Research Precinct, and establish a Victorian-wide alliance. Today, we're seeing the AIID partnership growing at a rapid pace, with the inclusion of Monash University, WEHI, Murdoch Children's Research Institute (MCRI), and CSL Ltd, among others.

The AIID will be the largest research collaboration in the Southern hemisphere, with more than 1,500 experts. This will ensure scaled-up preparedness to tackle future pandemics and rapid activation of solutions to the region's other infectious disease challenges.

Our Leadership Team

The Board and Executive leadership team is comprised of highly qualified individuals with rich and diverse skillsets, committed to achieving our purpose. The team's expertise spans medical research, public health, medicine, law, business development, advocacy, communications, finance, corporate governance and innovation.



**Ms
Mary Padbury**
BA, LLB(Hons)
Director and Chair



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

Directors



**Associate Professor
Helen Evans AO**
BA, BSocAdmin

Director since 2015.
Associate Professor (Hon) The Nossal
Institute for Global Health, The University
of Melbourne. Vice Chair of the
Board, The Fred Hollows Foundation.
Former Deputy CEO of GAVI Alliance.



**Mr
Robin Bishop**
LLB(Hon), BCom, BA

Director from 2012 - Sept 2021.
Founder and Managing Partner,
BGH Capital. Former Head and
Executive Director, Macquarie
Capital Australia and New Zealand.



**Mr
Benjamin Foskett**
BBus(Acc), FAICD

Director since 2013.
Executive Director of Pathway
Services Pty Ltd.



**Professor
Peter Colman AC**
BSc(Hons), PhD, FAA, FRS, FTSE

Director since 2011.
Head, Structural Biology
Division, WEHI.



**Mr
John Georgakis**
BBus(Acc)

Director from 2018 - Sept 2021.
Former Director, Interplast Australia
& New Zealand. Former Partner,
Arthur Andersen, and Ernst & Young.



**Professor
Sandra Eades AO**

PhD, FASSA, FAHMS

Director since 2020.
Dean, Curtin University Medical
School. Director, Outback Stores.



**Mr
Leigh Jasper**

BE(Hons), BSc

Director since 2016.
CEO, Saniel Ventures.
Co-founder and former Director
and CEO of Aconex Limited.



**Ms
Alison Larsson**

BEC, CPA, GAICD

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



**Mrs
Miche Hartigan**

Director since 2017.
Managing Partner, MJH
Consulting. Advisory
Board Member, Newgate
Communications.



**Professor
Sharon Lewin AO**

FRACP, PhD, FAHMS

Director since 2014.
Director, The Peter Doherty Institute
for Infection and Immunity.
Professor of Medicine at The
University of Melbourne. Former
Co-Head of Burnet's Centre for
Biomedical Research.



**Dr
Serge Scrofani**

BSc(Hons), PhD, MBA, GAICD

Director since 2019.
Vice President, Strategy and
Corporate Development,
CSL Limited. Director, AusBiotech
Limited, and FinCap Pty Ltd.



**Professor
Christina Mitchell AO**

MBBS, PhD, FRACP

Director since 2011.
Dean of Medicine, Nursing and
Health Sciences, Monash University.
Director, Hudson Institute of
Medical Research.



**Mr
Michael Ziegelaar**

LLB(Hons), BEc, 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

**Chief Financial Officer
and Company Secretary:**
Peter Spiller

**Chair of Gender Equity,
Diversity and Inclusion:**
Professor Caroline Homer AO

Deputy Directors:
Associate Professor David Anderson
Professor Margaret Hellard AM
Professor James Beeson

**Director, Strategic Funding
and Partnerships:**
Geoff Drenkhahn

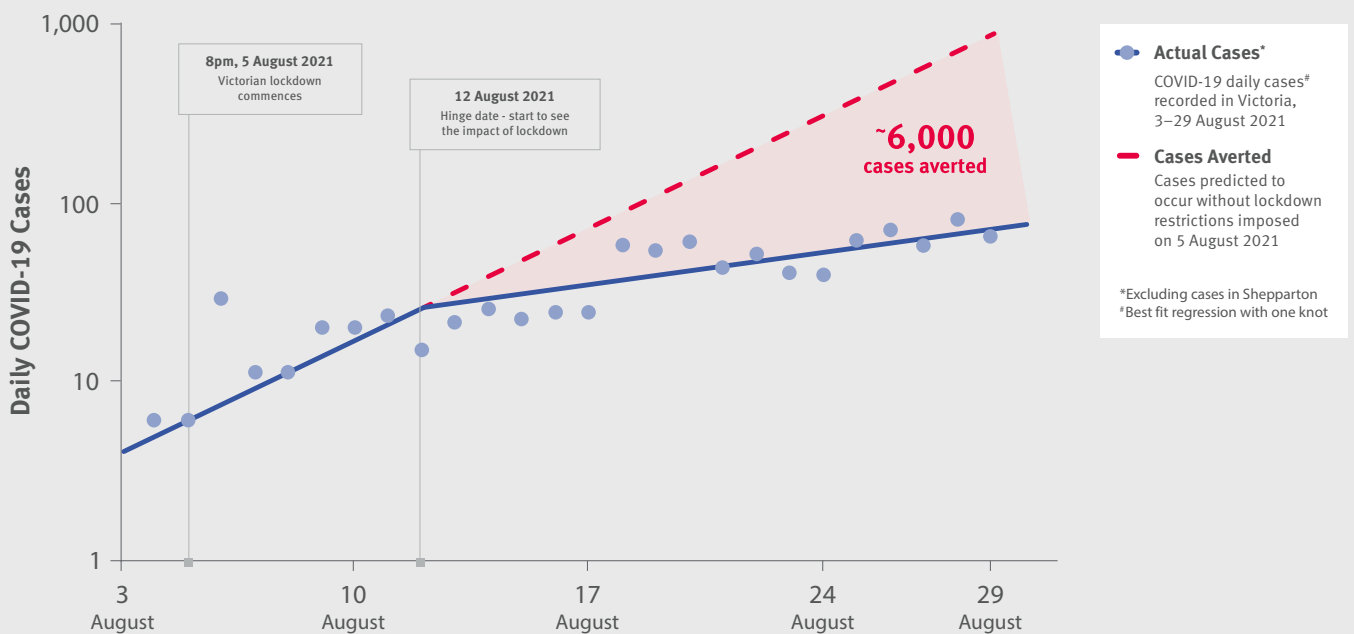
**Head, Project Management,
Quality Assurance:**
Mary-Ann Nicholas

Chief Operating Officer:
Mark Tennent

Chief of Staff:
Paul Rathbone

Our Impact

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



“ Science does matter, it’s why we’re not in the dark ages. But not only does science matter, the products of science have to be available to everyone. Health care needs to be equitable. If it’s not, you pay a big price – with people’s lives.”

Professor Brendan Crabb AC
Director and CEO, Burnet Institute



334

peer-reviewed publications



\$12M (AUD)

in MRFF and NHMRC grants and fellowships



20+

countries we work in



\$86M (AUD)

spent on improving health for a more equitable world

2021

Year at a Glance



JANUARY

Strengthening Surveillance

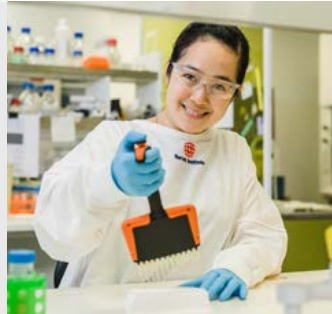
The STRIVE PNG team established infrastructure and capability for vector-borne disease surveillance pivots to support PNG's COVID-19 public health response.



JANUARY

Major Study in Antenatal Care

Very high rates of unintended pregnancy and very low use of modern family planning methods among women in Papua New Guinea highlight the urgent need for targeted services and strategies.



JANUARY

Malaria Innovation

New research by Burnet Institute and QIMR Berghofer linked the activation of immune cells to the generation of protective antibodies against malaria.

APRIL

A Voice for Young and Culturally Diverse

The Optimise Study finds high rates of COVID-19 testing hesitancy among young Australians and migrant communities due to shame and stigma.



450+

scientists, public health professionals and support staff

31

research working groups

59

students

APRIL

Defining Menstrual Health

Dr Julie Hennegan was part of a collaboration of experts who developed a definition of menstrual health, filling a significant gap in research, policy and practice.



MAY

Vaccine Equity

Burnet’s RID-TB team supported a COVID-19 vaccine roll-out, leading the Western Province to report the highest vaccine coverage in PNG outside of Port Moresby and the National Capital District.



MAY

The Fight Against Tuberculosis

Melbourne TB Community (MTBC) was established to optimise science and practice relating to tuberculosis (TB), the world’s oldest and deadliest pandemic.



MAY

AIID Foundation Partners Announced

Burnet Institute, Doherty Institute and The University of Melbourne welcomed Victorian Government’s further investment of AUD\$245 million to support the new Australian Institute for Infectious Disease (AIID).



JUNE

COVID-19 Modelling

New COVASIM modelling shows thousands of deaths are likely if COVID-19 is ‘left to run’ in Victoria without high vaccine uptake and public health measures.



JUNE

Medically Supervised Injecting Room (MSIR)

A Burnet study shows the North Richmond MSIR is fulfilling its brief by attracting and helping people who are most at risk from harm relating to their injecting drug use.



JULY

Mask Effectiveness

In a world-first study, Burnet shows how the mandating of masks during Melbourne's second COVID-19 wave in 2020 helped 'turn the epidemic around'.

JULY

Hepatitis C Elimination in Aboriginal Communities

A new partnership with Bulgarr Ngaru Aboriginal Medical Association aims to boost hepatitis C elimination in regional settings using culturally appropriate strategies to stop new infections and reduce severe illness.



AUGUST

Sale of 360biolabs

The Burnet Institute majority-owned company 360biolabs signed an agreement to be purchased by BioAgilytix Labs, LLC (BioAgilytix), a leading global contract research laboratory headquartered in the USA.



AUGUST

Podcast Series

Burnet launches *How Science Matters*, an eight-part podcast helping to make sense of COVID-19 and how science is playing a leading role in shaping our response.



AUGUST

Well Beyond 50

Collaborating with Living Positive Victoria, Thorne Harbour Health and Alfred Health, Burnet launches *Well Beyond 50*, a platform providing support and resources to people in Victoria living with HIV aged over 50.

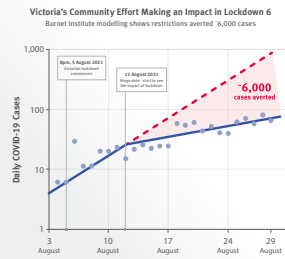




SEPTEMBER

6,000 COVID-19 Cases Averted

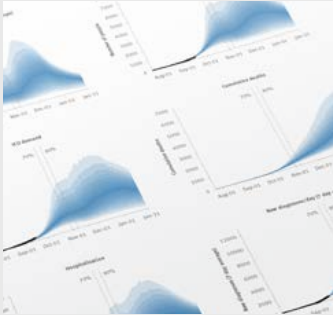
Burnet modelling shows Victoria's community effort during Lockdown 6 helps avert around 6,000 COVID-19 cases in August 2021.



SEPTEMBER

Reproductive Health

Burnet researchers are working with an international team to trial a new tool that diagnoses vaginal inflammation to help reduce the risk of HIV infection.



SEPTEMBER

Victoria's Roadmap

Burnet COVASIM COVID-19 mathematical modelling, commissioned by the Victorian Government, informs Victoria's new roadmap away from COVID-zero to deliver the National Plan.



NOVEMBER

Overdose Prevention

New Burnet study demonstrates how improved access to naloxone in Australia could prevent hundreds of overdose deaths from prescription opioids.

DECEMBER

COVID-19 Prevention and Treatment Funding

Burnet receives over \$3 million in Victorian Government funding to progress new preventative and therapeutic agents against COVID-19 variants.



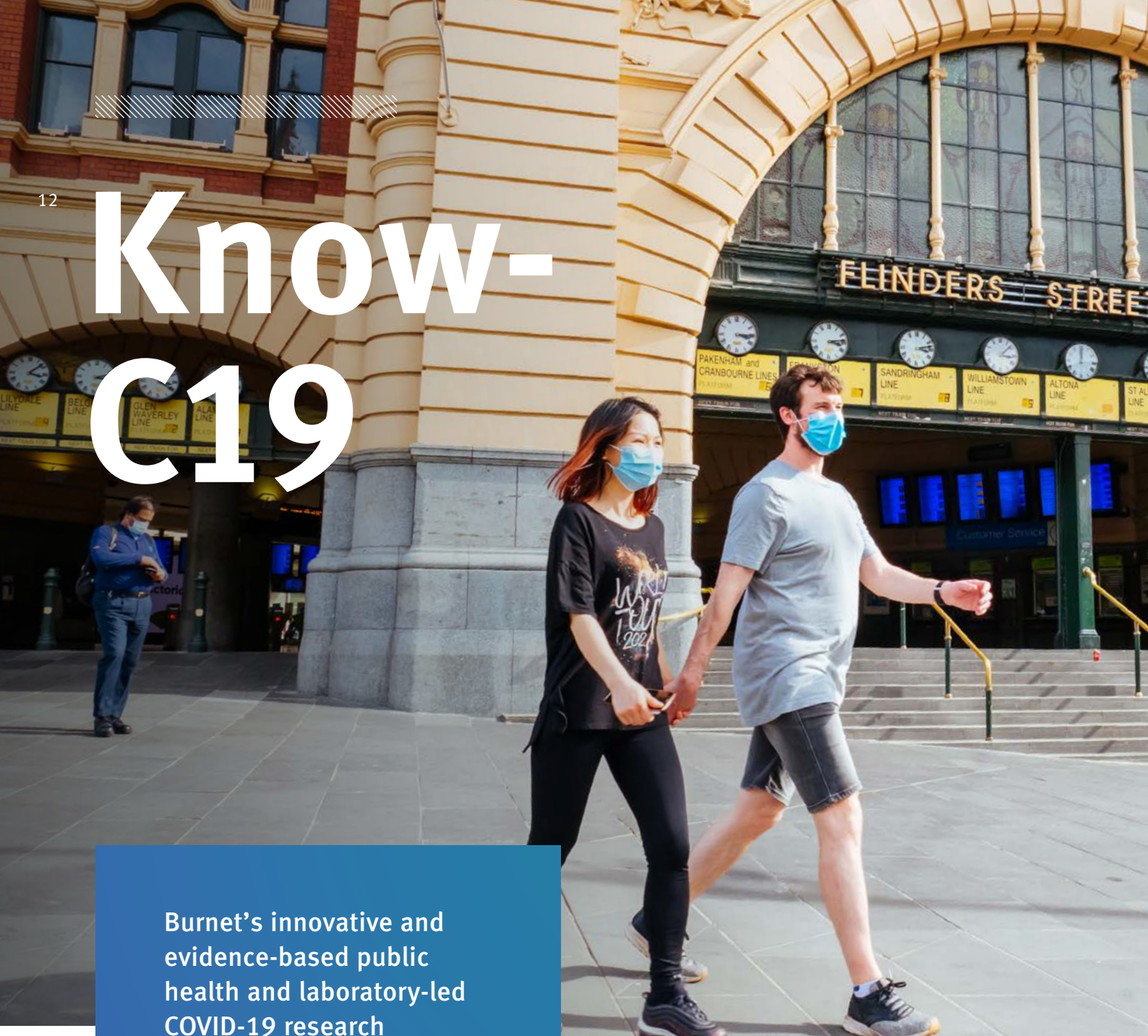
DECEMBER

Rapid NAb Test

Burnet and Doherty Institutes develop a finger prick test that can quickly predict a person's level of neutralising antibodies to COVID-19.



Know-C19



Burnet’s innovative and evidence-based public health and laboratory-led COVID-19 research initiatives continue to contribute solutions to the global pandemic.

Our Goals



Reduce COVID-19 transmission in Australia and internationally



Minimise impacts of the response on the community



Enhance preparedness for future outbreaks



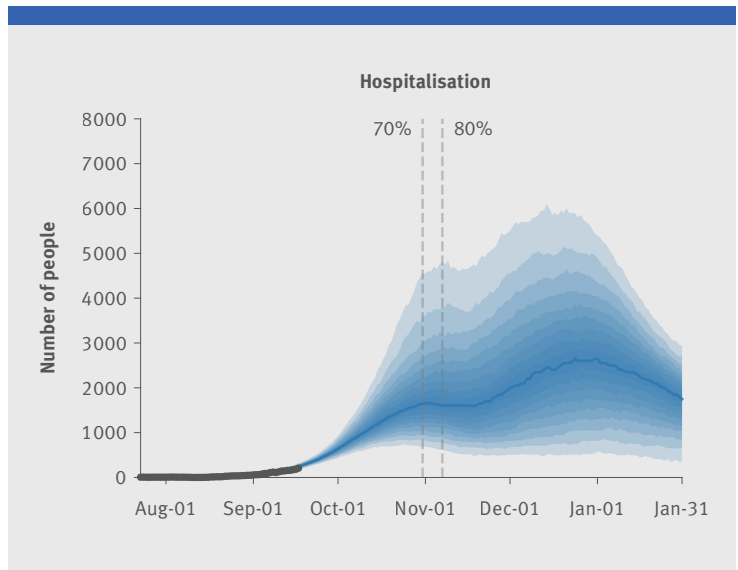
COVID-19 Modelling

INFORMING PUBLIC HEALTH RESPONSES

Since the beginning of the COVID-19 pandemic in Australia, Burnet’s mathematical modelling team has proudly played a critical role.

Burnet’s COVASIM* model has informed public health policy by examining how public health restrictions could be fine-tuned to alleviate the social and economic burden of lockdowns, but without compromising suppression of community transmission of the virus.

Throughout 2021, the COVASIM model was fundamental in helping to shape the outcome of both Delta waves in NSW and Victoria, and outlining a safe pathway out of Lockdown 6 in Victoria – informing the roadmap to deliver The National Plan.



*Developed by Burnet Institute and the Institute of Disease Modelling in the USA, COVASIM is an individual-based simulation model that allows investigation of the risk mitigation of COVID-19 transmission through the simulation of different policies.

“It’s not over yet, we are not out of the woods and we won’t be for some time unfortunately. We have to get numbers down everywhere and get more serious about vaccinating the world.”

Professor Brendan Crabb AC

Our Impact

53

peer-reviewed publications

24

COVID-19 public health reports

12.2k

media mentions of advocacy work

44

COVID-19 research projects



Diagnostics



Public Health



Antivirals



Modelling



Vaccines



International Development



Advocacy

Optimise

THE SCIENCE OF BEHAVIOUR CHANGE

The Optimise Study – with community needs at the core – has recruited close to 700 participants from a wide range of cultural and socio-economic backgrounds, and uses data to inform governments on the best strategy to protect Victorians from the effects of COVID-19, in a way that is both feasible and acceptable to the community.

Data from the study has been collated into more than 10 reports sent to governments and health officials, with the team meeting regularly with Victorian Government departments to discuss study findings.

The pandemic has brought about a variety of innovations in our healthcare armoury, but ultimately, people's attitudes and beliefs are instrumental in determining whether these tools will be used effectively.



“ Optimise provides governments with timely and high-quality data to make precise, impactful policy during the COVID-19 response to support community needs.”

Professor Margaret Hellard AM

Responding to COVID-19 in Papua New Guinea

As COVID-19 began to spread in the Asia-Pacific region, Burnet responded in Papua New Guinea (PNG) by pivoting our in-country resources and efforts to help the local response to the pandemic.

COVID-19 SURVEILLANCE

STRIVE PNG is a highly collaborative project that is strengthening vector-borne disease surveillance across eight provinces in PNG by working in partnership with facility, district, provincial and national partners to develop fit-for-purpose data dashboards and map overlays to support health workers' engagement in surveillance and use of data for decision-making. The Molecular Hub Team was able to rapidly establish RT-PCR testing for SARS-CoV-2 and a new platform for sero-surveillance of exposure. Sentinel site teams worked closely with provincial authorities in priority areas, including timely recording of acute respiratory illness data and supporting implementation research on the impact of COVID-19 on routine health service delivery and infectious disease programs. In doing so, the team played a crucial role in PNG's COVID-19 response.

COVID-19 VACCINE ROLL-OUT

Burnet's RID-TB team has responded to the tuberculosis (TB) epidemic in PNG's Western Province since 2014. In spite of the COVID-19 pandemic, the RID-TB team maintained its support programs and harnessed its resources and experience to support provincial COVID-19 preparedness and response, including the vaccine roll-out. As a result of close consultation and partnership with the Western Provincial Health Authority, the PNG-Australia Transition to Health program and World Vision International, with support from the Department of Foreign Affairs and Trade, Western Province now reports the highest vaccine coverage in PNG outside of Port Moresby and the National Capital District.

ADVOCACY FOR EQUITY

Burnet has played a key role alongside leading health and aid experts in advocating for vaccine equity. Even with support from our collaborators, low-income countries are facing stark inequities in COVID-19 vaccination, with only 5.1 per cent of PNG's population vaccinated with two doses. Burnet will continue to lend its voice and resources, because equal access to life-saving interventions is vital.

Innovation in our Labs



POINT-OF-CARE NEUTRALISING ANTIBODY TEST

A new fingerprick rapid test that can quickly measure levels of neutralising antibodies to COVID-19 is being developed as part of the Burnet Diagnostics Initiative (BDI). Neutralising antibody (NAb) test development is being led by Associate Professor David Anderson, Burnet Deputy Director, and Professor Heidi Drummer, BDI Scientific Director, in collaboration with the Doherty Institute. The test will indicate a person's immunity to new and emerging variants of the virus. This test provides a new option for immunity screening to support COVID-19 vaccination and control programs, particularly in time-critical and low- and middle-income settings where laboratory-based testing is difficult or impossible for many to access.

BLOCKING COVID-19 VARIANT TRANSMISSION

New research brings together multiple technologies across complementary teams at Burnet to address how to block transmission of current and future variants of COVID-19. Associate Professor David Anderson and Professor Heidi Drummer are leading development of an antibody technology that aims to provide immediate and long-lasting protection from COVID-19 infection in the upper respiratory tract.

While the available vaccines give very good protection against severe disease, hospitalisation and death, Burnet's mucosally-targeted preventative approach will act as an extra barrier, effectively a long-acting form of biological personal protective equipment to prevent infection occurring in the first place.

A NEW APPROACH USING POTENT DECOYS

Burnet's Immune Therapies Group, led by Professor Mark Hogarth, and Senior Postdoc Dr Bruce Wines, have used their cancer research technology to engineer potent decoy biological drugs, which meet the current need to continuously redevelop vaccines and antibodies to counter the changing virus. Working as part of a project team with the Doherty Institute, The University of Melbourne and the WHO Collaborating Centre, Burnet is looking to prevent and treat COVID-19 with ACE2-Fc decoys that are also designed to be effective against future strains of SARS-CoV-2 and new coronaviruses. The biological drugs not only neutralise all strains of the current virus, but have the further benefit of futureproofing our security against pandemics caused by these types of virus.

Healthy Mothers, Healthy Babies



“ COVID-19 continued to pose challenges to the delivery of HMHB in Papua New Guinea (PNG) throughout 2021. Despite the barriers, Burnet’s fantastic PNG team furthered our work to deliver on this important research initiative.”

Professor Caroline Homer AO, Co-Program Director, Maternal, Child and Adolescent Health



Healthy Mothers, Healthy Babies is a ground-breaking research program that aims to understand the causes of death and disease among women and children in Papua New Guinea and evaluates strategies to improve their health.

HIGHLIGHTING THE NEED FOR SIMPLE INTERVENTIONS

In 2021, new published research identified the high burden of the sexually transmitted infection – *Mycoplasma genitalium* – in pregnant women, that has not been previously identified in PNG. The research, involving nearly 700 women, also found an extremely high rate of reproductive tract infections. Undiagnosed and untreated in the community, reproductive tract infections can cause serious complications in mothers such as miscarriage, and among babies, neonatal death or lifelong disability. The findings will be used to advocate for accelerated development of, and access to, affordable and accurate tests for the presence of these infections in communities and crucially, treatments for better pregnancy outcomes and prevention of death and disability.

IMPROVING FAMILY PLANNING KNOWLEDGE TO REDUCE UNINTENDED PREGNANCY

A companion study identified high rates of unintended pregnancy, which exposes women and their babies to increased risks during pregnancy and childbirth. More than half (55 per cent) of women attending their first antenatal clinic visit reported their pregnancy as unintended.

The study found very low use of modern family planning methods (fewer than 18 per cent) and low knowledge of these methods. It found that involvement of male partners in antenatal care was linked to reduced unintended pregnancy and improved family planning use.



EC Australia

Burnet Institute leads this national collaborative partnership to eliminate hepatitis C as a public health threat in Australia by 2030 and ensure high numbers of Australians access treatment.

The EC Australia partnership delivers a targeted cohesive approach to hepatitis C testing and treatment among people who inject drugs, people in prison, and Aboriginal and Torres Strait Islander people. We work with our partners to reduce the incidence and prevalence of hepatitis C through health promotion awareness, innovative delivery of workforce development activities and health services, as well as implementation research, evaluation and surveillance.

EVALUATION AND SURVEILLANCE

- More than 89,000 Australians received direct-acting antiviral therapy by the end of 2020, as reported in the third annual 'Australia's progress towards hepatitis C elimination' report produced by Burnet and Kirby Institutes. This number represents close to half (47 per cent) of all people estimated to have chronic hepatitis C.*
- More than a third (37 per cent) of all hepatitis C treatments in 2020 in Australia occurred within the prison sector, demonstrating the significant contribution of this sector towards hepatitis C elimination efforts.
- Since 2016, there has been a continuing downward trend in the rate of people undergoing liver transplantation for hepatitis C-related liver failure and liver cancer, highlighting the impact of hepatitis C treatment in reducing liver failure and liver cancer.

New Surveillance Programs

- The PRECISE program, a Victoria-wide data linkage program, is now describing and monitoring the impact of direct-acting antiviral therapy on hepatitis C-related liver cirrhosis and liver cancer.
- The CAPRISE program, a population-based cirrhosis screening program, was established in partnership with St Vincent's Pathology to provide automated calculations of liver fibrosis, liver cirrhosis information and a weblink to streamline specialist referral on routine blood test event reports.

*as at 2015

INCREASING AWARENESS THROUGH HEALTH PROMOTION

- EC Australia completed the co-design and focus-testing of a national health promotion campaign concept. The 'It's Your Right' campaign is being rolled out in all states and territories in 2022.

IMPROVING WORKFORCE DEVELOPMENT AND HEALTH SERVICE DELIVERY

- Across Australia, seven partners completed projects in 2021 that helped improve the hepatitis C care journey for many people. The other 14 projects benefited from the sharing of innovative practices and approaches and will be completed in 2022.

ABORIGINAL HEALTH STRATEGY

- EC Australia has partnered with Bulgarr Ngaru Medical Aboriginal Corporation and the Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine (ASHM) to implement a project aimed at increasing access to testing and treatment of hepatitis C among Aboriginal communities in Northern NSW through a \$500,000 grant from the Commonwealth Department of Health.
- Work has progressed towards the development of specific campaign for Aboriginal people who inject drugs that tailors messaging and resources from the national health promotion campaign. Aboriginal Medical Services will be part of a follow-up campaign partnering with NACCHO.

ADVOCATING FOR PRIORITY AREAS

- Under EC Australia's Advocacy Strategy, Burnet and partners identified three priority areas for further advocacy work in improving hepatitis C testing, increasing support for peer workers across the care cascade, and expanding hepatitis C elimination efforts in prisons together with the National Hepatitis Prisons Network. EC Australia will be prioritising these initiatives in 2022.

“Australia has an opportunity to eliminate a deadly virus. The focus now is on getting 120,000 people who live with hepatitis C on treatments that are highly effective, well-tolerated and easily accessible.”

Professor Margaret Hellard AM,
Burnet Deputy Director and infectious diseases clinician

THE VALUE OF PEER SUPPORT

The QulHN Community Peer Support Project is one of the Workforce Development and Health Service Delivery initiatives completed in 2021.

Over two years, five part-time peer workers helped people who inject drugs to navigate their hepatitis C testing and treatment journey.

One of the peer workers who identified as a First Nations person focused on reaching Aboriginal and Torres Strait Islander clients, linked them to community services and facilitated engagement between the clients and health workers.

The project raised awareness of the value of people with lived experience and their role in supporting people at risk of hepatitis C in the community.



Liaised with 115 community stakeholders in Queensland



Conducted 110 hepatitis C point-of-care tests over nine months



Supported 25 people through to treatment



Conducted regular outreach to five services in Southeast Queensland

Supported by

paulramsay
FOUNDATION
PARTNERSHIPS FOR POTENTIAL

Changing Lives

Translating knowledge into better health and changing lives is at the heart of what we do and who we are.



MATERNAL & NEWBORN HEALTH

Building capacity in health professionals during COVID-19

A Burnet-supported Midwifery Education Program has overcome COVID-19 restrictions to deliver virtual training to midwifery educators in 21 countries from across the Asia-Pacific region. Working with UNFPA Asia-Pacific, the Faculty Development Program transitioned quickly to online learning. More than 200 midwifery educators have completed the program. This significant achievement has eased the challenges faced by a finite midwifery workforce in many of these countries and assisted in the delivery of quality education during the pandemic.

MALARIA

Advancing the fight against malaria in young children and pregnant women

A Burnet study revealed new insights into how antibodies recruit specific proteins in the blood called ‘complement’ to prevent malaria in pregnancy. Researchers found that complement significantly enhanced the blocking power of antibodies to prevent malaria from infecting the placenta. The findings are key to developing next-generation malaria vaccines or new drugs that will prevent malaria’s devastating effects on mothers and babies. In related studies, Burnet researchers are advancing the development of highly protective malaria vaccines by identifying new ways to target malaria and manufacture vaccines.



ALCOHOL & OTHER DRUGS

Improved naloxone access can prevent prescription opioid overdose deaths

In new research, Burnet researchers demonstrated a cost-effective way to save hundreds of lives. Based on current trends, it was estimated that there will be 7,478 deaths from prescription opioid overdose in Australia between 2020 and 2030, resulting in large costs to the community, including \$51.9 million in ambulance costs alone. The study shows that providing naloxone, an opioid overdose antidote, along with training on how to respond to opioid overdoses, free of charge to all people receiving prescription opioids in Australia will save lives and reduce costs to the community. This is because the cost of naloxone is small, while the gains of preventing overdose mortality are large.





HIV

Shorter transitions in the cascade of care show better HIV prevention outcomes

Burnet researchers, in collaboration with an international team, published a study of time between HIV care stages following a diagnosis among gay and bisexual men in Australia. It found that shorter transition times between diagnosis and starting antiretroviral treatment, and treatment that achieved viral suppression, were likely to have contributed to declines in new HIV-positive cases in this group between 2012 and 2018. The TAIPAN study was the first in Australia, and the first in any high-income country, to use a longitudinal approach to track progress in virus suppression targets. The finding is a significant support for earlier testing and immediate treatment initiation at HIV diagnosis to reduce the risk of transmitting the virus.

TUBERCULOSIS

Supporting the TB response amid the rise of COVID-19 in PNG

Tuberculosis (TB) continues to be the second leading infectious disease cause of death in Papua New Guinea. Like COVID-19, TB is transmitted from person-to-person through the air. Leveraging these similarities, Burnet worked with several hospitals to identify ways to improve infection and prevention control practices to minimise risk of transmission of TB and COVID-19, including improving ventilation and training staff on fit-testing of protective masks. At the coalface, Burnet staff maintained the work on patient education and counselling services for people on TB treatment. Peer counsellors were hired and trained to facilitate the referral of patients to treatment and support services using their lived experience of TB and local understanding of the challenges faced by people needing treatment.



HEPATITIS C

Community-based research in Myanmar shows an effective way to achieve hepatitis C cure

Retaining a high proportion of hepatitis C patients in care until cure is an important factor to achieving elimination. Care models that achieve this are more cost-effective, which is important in low- and middle-income countries where over three-quarters of hepatitis C burden lies. A Burnet study, in partnership with FIND and Myanmar Liver Foundation and supported by Unitaid, trialled a care model using rapid tests, point-of-care diagnostics, and GPs prescribing direct-acting antivirals in primary care clinics. Over 90 per cent of those treated achieved a cure. The short time between testing and starting treatment ensured almost all people started treatment. The one-stop-shop approach, led by GPs, showed what this model of care for patients can achieve in low- and middle-income countries. The success of this care model is an important step forward in global efforts to eliminate hepatitis C as a public health threat.

Program-led Institute

Four institute-wide interdisciplinary thematic health programs are at the heart of our daily decision-making. Each thematic program represents the breadth of our technical skill base, which fosters a collaborative approach to tackle some of the most challenging global health issues.

How we work

We bring a breadth of expertise in discovery and translational research, public and global health programs, and delivering health solutions in Australia, regionally and globally. We improve the health status of key populations through excellence, innovation and collaboration.

Key Publications



334

peer-reviewed publications



249

Burnet authors appearing on these publications

DISEASE ELIMINATION

Program Goal: To eliminate disease to achieve good health for all throughout life

Feng G, Wines BD, Kurtovic L, Chan JA, Boeuf P, Mollard V, Cozijnsen A, Drew DR, Center RJ, Marshall DL, Chishimba S, McFadden GI, Dent AE, Chelimo K, Boyle MJ, Kazura JW, Hogarth PM, Beeson JG

Mechanisms and targets of Fcγ-receptor mediated immunity to malaria sporozoites.

Nature Communications 2021, 12(1), 1742

Conclusion: Functional antibodies are acquired slowly following natural exposure to malaria, being present among some exposed adults, but uncommon among children. Our findings reveal targets and mechanisms of immunity that could be exploited in vaccine design to maximise efficacy.

van Santen DK, Asselin J, Haber NA, Traeger MW, Callander D, Donovan B, El-Hayek C, McMahon JH, Petoumenos K, McManus H, Hoy JF, Hellard M, Guy R, Stoové M; TAIPAN investigators.

Improvements in transition times through the HIV cascade of care among gay and bisexual men with a new HIV diagnosis in New South Wales and Victoria, Australia (2012-19): a longitudinal cohort study.

The Lancet HIV 2021, 8(10), e623 – e632

Conclusion: In countries with high cross-sectional cascade estimates, such as Australia, the impact of treatment as prevention is better estimated using longitudinal cascade analyses.

O'Flaherty K, Oo WH, Zaloumis SG, Cutts JC, Aung KZ, Thein MM, Drew DR, Razook Z, Barry AE, Parischa N, Zaw NN, Thu HK, Thi A, Htay WYM, Soe AP, Simpson JA, Beeson JG, Agius PA, Fowkes FJI

Community-based molecular and serological surveillance of subclinical malaria in Myanmar.

BMC Medicine 2021, 19(1), 121

Conclusion: Integration and implementation of sample collection for molecular and serological surveillance into networks of village health volunteers servicing hard-to-reach populations in the Greater Mekong Subregion is feasible, can capture significant levels of ongoing undetected seasonal malaria transmission, and has the potential to supplement current routine rapid diagnostic testing.

MATERNAL, CHILD AND ADOLESCENT HEALTH

Program Goal: Equity in maternal, child and adolescent health

Vogel JP, Comrie-Thomson L, Pingray V, Gadama L, Galadanci H, Goudar S, Laisser R, Lavender T, Lissauer D, Misra S, Pujar Y, Qureshi ZP, Amole T, Berrueta M, Dankishiya F, Gwako G, Homer CSE, Jobanputra J, Meja S, Nigri C, Mohaptra V, Osoti A, Roberti J, Solomon D, Suleiman M, Robbers G, Sutherland S, Vernekar S, Althabe F, Bonet M, Oladapo OT

Usability, acceptability, and feasibility of the World Health Organization Labour Care Guide (LCG): A mixed-methods, multicountry evaluation.

Birth 2021, 48(1), 66 - 75

Conclusion: The LCG is feasible and acceptable to use across different clinical settings and can promote woman-centred care, though some design improvements would benefit usability. Implementing the LCG needs to be accompanied by training and supportive supervision, and strategies to promote an enabling environment.

McLean ARD, Opi DH, Stanisic DI, Cutts JC, Feng G, Ura A, Mueller I, Rogerson SJ, Beeson JG, Fowkes FJ

High antibodies to VAR2CSA in response to malaria infection are associated with improved birthweight in a longitudinal study of pregnant women.

Frontiers of Immunology 2021, 12, 644563

Conclusion: When infected by mid-pregnancy, a better immune response to VAR2CSA-expressing parasites may contribute to protection against adverse pregnancy outcomes.

Hennegan J, Winkler IT, Bobel C, Keiser D, Hampton J, Larsson G, Chandra-Mouli V, Plesons M, Mahon T

Menstrual health: a definition for policy, practice, and research.

Sexual and Reproductive Health Matters 2021, 29(1), 1911618

Conclusion: The term ‘menstrual health’ has seen increased use across advocacy, programming, policy and research, but has lacked a consistent, self-contained definition. We present a definition of menstrual health developed by the Terminology Action Group of the Global Menstrual Collective.

BEHAVIOURS AND HEALTH RISKS

Program Goal: To promote equity, health behaviours, and reduce risks to improve health and wellbeing in key populations

Van Den Boom W, Del Mar Quiroga M, Fetene DM, Agius PA, Higgs PG, Maher L, Hickman M, Stoové MA, Dietze PM

The Melbourne safe injecting room attracted people most in need of its service.

American Journal of Preventive Medicine 2021, 61(2), 217-224

Conclusion: The Melbourne Medically Supervised Injecting Room attracted socially marginalised people who inject drugs who are most at risk of harms related to injecting drug use and therefore who are most in need of the service.

Stewart AC, Cossar RD, Wilkinson AL, Quinn B, Dietze P, Walker S, Butler T, Curtis M, Aitken C, Kirwan A, Winter R, Ogloff J, Kinner S, Stoové M

The Prison and Transition Health (PATH) cohort study: Prevalence of health, social, and crime characteristics after release from prison for men reporting a history of injecting drug use in Victoria, Australia.

Drug and Alcohol Dependence 2021, 227.

Conclusion: Men in this study experienced substantial health and social challenges across a 24-month prospective follow-up period. Improved understanding of characteristics and experiences can inform more coordinated and continued care between prison and the community.

Roxburgh A, Jauncey M, Day C, Bartlett M, Cogger S, Dietze P, Nielsen S, Latimer J, Clark N

Adapting harm reduction services during COVID-19: lessons from the supervised injecting facilities in Australia.

Harm Reduction Journal 2021, 18(1), 20

Conclusion: Both the Sydney Medically Supervised Injecting Centre and Melbourne Medically Supervised Injecting Room provide critical services for people who inject drugs and are important conduits to accessing other health and social services. Their continued operation during the pandemic has been essential.

HEALTH SECURITY

Program Goal: Improved health security through supporting community and health system resilience to address public health threats in our region

Oo WH, Htike W, Cutts JC, Win KM, Thu KM, Oo MC, Hkawng GN, Agius PA, Htoon PP, Scott N, Kearney E, Moreira C, Pedrana A, Stoové M, Thi A, Aung YW, Thein MM, Rosecrans K, Lwin KT, Min AK, Fowkes FJ

A mobile phone application for malaria case-based reporting to advance malaria surveillance in Myanmar: a mixed methods evaluation.

Malaria Journal 2021, 20(1), 167

Conclusion: Implementation of malaria case-based reporting provided timely and accurate data for malaria surveillance. Findings will enable the optimisation of an application-based reporting system for malaria monitoring and surveillance in the Greater Mekong Subregion.

Lautu-Gumal D, Razook Z, Koleala T, Nate E, McEwen S, Timbi D, Hetzel MW, Lavu E, Tefuarani N, Makita L, Kazura J, Mueller I, Pomat W, Laman M, Robinson LJ, Barry AE

Surveillance of molecular markers of *Plasmodium falciparum* artemisinin resistance (kelch13 mutations) in Papua New Guinea between 2016 and 2018.

International Journal for Parasitology, Drugs and Drug Resistance 2021, 16, 188 - 193

Conclusion: Pfk13 “C580Y” mutant parasites with reduced in vitro sensitivity to artemisinin were isolated in Wewak, a port town in East Sepik Province, Papua New Guinea. Among 663 high-quality Pfk13 sequences, five variants were identified.

Fulford TS, Van H, Gherardin NA, Zheng S, Ciula M, Drummer HE, Redmond S, Tan HX, Boo I, Center RJ, Li F, Grimley SL, Wines BD, Nguyen THO, Mordant FL, Ellenberg P, Rowntree LC, Kedzierski L, Cheng AC, Doolan DL, Matthews G, Bond K, Hogarth PM, McQuilten Z, Subbarao K, Kedzierska K, Juno JA, Wheatley AK, Kent SJ, Williamson DA, Purcell DFJ, Anderson DA, Godfrey DI

A point-of-care lateral flow assay for neutralising antibodies against SARS-CoV-2.

EBioMedicine 2021, 74, 103729

Conclusion: The COVID-19 NAb-test™ device, a lateral flow POC test that can measure levels of RBD-ACE2 neutralising antibody (NAb) from whole blood, provides a rapid readout of NAb-based protection to SARS-CoV-2 at the point-of-care.

Inspiring the Researchers of Tomorrow

A message from Dr Raffi Gugasyan

CHAIR, EDUCATION AND RESEARCH INTEGRITY

In 2021, Burnet students continued to demonstrate tremendous resilience. Our students actively sought to further their educational and social development. Led by student representatives Jessica Horton and Michael Curtis and members of the student committee, we organised educational workshops, virtual trivia sessions and the annual Burnet student symposium with keynote speaker Victorian Chief Health Officer, Professor Brett Sutton.

Burnet aims to provide the best possible research environment for its students. Our supervisors are internationally competitive in their fields and deliver the best possible mentorship to our students.

We congratulate our students and wish them the best with their research aspirations.

“I chose to study at Burnet Institute because of some of the unique studies its staff lead. In particular, some of the studies around injecting drug use are unique to Australia, with only a couple of similar examples operating around the world. My PhD supervisors are world leaders in their fields, with decades of experience, and have supported me to network not only with Australian researchers but other leaders internationally.”

Michael Curtis, PhD candidate,
Alcohol and Other Drugs programs



CONGRATULATIONS TO OUR 2021 PHD AWARDEES:



Reece Cossar

Mikha Gabriela

Madeline Dans

Stelliana Goutzamanis

Eliza Davidson

Thorey Jonsdottir



59
Students

41 PhD
Students

12 Honours
Students

6 Masters
Students

Congratulations

We are very proud of the outstanding work our Burnet team delivered in 2021. Burnet staff remain dedicated to achieving our purpose of creating knowledge and translating it into better health so no-one is left behind.



DR NICK SCOTT
Gust-McKenzie Medallist

APPOINTMENTS

2021 Fellow of the Australian Academy of Science (AAS):
Professor Brendan Crabb AC

mRNA Victoria's new Scientific Advisory Group:
Professor Brendan Crabb AC

Chair of the Council of the National Health and Medical Research Council (NHMRC):
Professor Caroline Homer AO

Chair of the Australian Global Health Alliance:
Professor Brendan Crabb AC

National Health and Medical Research Council (NHMRC) Research Committee for 2021–2024:
Associate Professor Joshua Vogel

AWARDS

2020 NHMRC Peter Doherty Investigator Grant Award (Emerging Leadership):
Associate Professor Joshua Vogel

2021 Commonwealth Health Minister's Award for Excellence in Health and Medical Research:
Associate Professor Joshua Vogel

The Margaret Harrison Parental Leave Grant:
Dr Hayley Bullen

Crofts Publication Award for Public Health 2020:
Dr Elissa Kennedy and Associate Professor Peter Azzopardi, and Professor Freya Fowkes and Paul Agius

Biomedical Research Publication Award 2020:
Professor Gilda Tachedjian and Dr Joshua Hayward

TRAVEL AWARDS

Crockett-Murphy Travel Award:
Dr Thin Mar Win and Ms Kaba Ula

Dora Lush Travel Fellowship:
Dr Alyce Wilson

Gender Equity, Diversity and Inclusion Travel Fellowship:
Dr Jo-Anne Chan

Geoffrey J Stewardson Fund Travel Fellowship:
Sophia Schroeder

Harold Mitchell Foundation Postdoctoral Travel Fellowship:
Dr Katherine O'Flaherty

Harold Mitchell Foundation Postgraduate Travel Fellowship:
Michael Traeger

Hon Geoffrey Connard Travel Fellowship:
Ashleigh Stewart

Miller Foundation Public Health Travel Award:
Michael Curtis

Miller Foundation Domestic Travel Grant:
Dr Shelley Walker

Pauline Speedy Biomedical Research Travel Fellowship:
Dr Thorey Jonsdottir



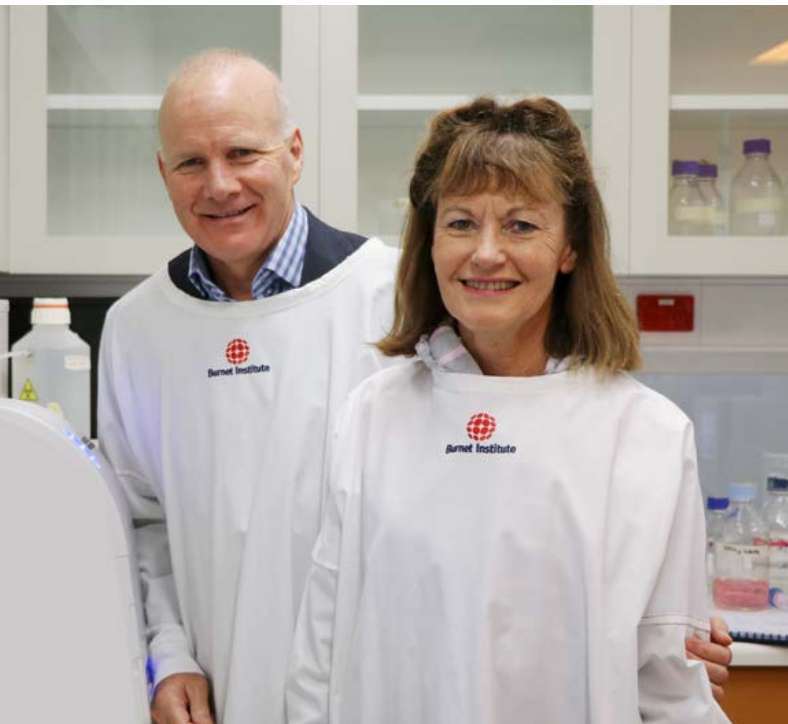
“ COVID-19 has thrown so many challenges at us ... this award provides an opportunity for me to continue doing what I love.”

Dr Alyce Wilson, recipient of the Dora Lush Travel Fellowship

26

How Major Gifts Make an Impact

Gifts of all sizes play a significant role at Burnet. A special thank you to all our supporters. We would like to highlight a few major gifts from 2021.



BAT RESEARCH SUPPORTED BY WILL AND JO CROTHERS VIA THE UPOTIPOTPON FOUNDATION

Burnet’s Retroviral Biology and Antivirals Laboratory was the first to discover an infectious retrovirus from a bat, which the team named the Hervey Pteropid Gammaretrovirus (HPG).

HPG is related to the well-known virus HIV. It is crucial to study this new virus because bats are known reservoirs of viruses and are carriers of highly pathogenic human diseases such as Ebola, Hendra and lyssaviruses.

For three years from 2021, Will and Jo Crothers pledged to support Burnet’s bat research through the Upotipotpon Foundation.

Image: Will and Jo Crothers from the Upotipotpon Foundation visiting the Burnet Laboratory.

THE MILLER FOUNDATION RECOGNISED FOR OUTSTANDING SUPPORT OF MEDICAL RESEARCH

The Miller Foundation has been a very generous and important supporter of Burnet Institute for many years. The family’s passion and support were instrumental in establishing our **Healthy Mothers, Healthy Babies** research program in Papua New Guinea, the development and commercialisation of the **VISITECT® CD4 rapid diagnostic test** for people living with HIV, in establishing the Institute’s **vaccine program for hepatitis C**, and Miller Foundation **Travel Fellowships**, among other priority research activities.

Towards the end of 2021, The Miller Foundation was acknowledged for its outstanding support of medical research with the Great Australian Philanthropy Award at the Research Australia Health and Medical Research Awards for 2020-21.

Image: Chris Miller, Jean Miller and Andrew Miller, accepting the Great Australian Philanthropy Award.





JEAN DRURY'S VISION AND SUPPORT FOR DIAGNOSTICS CONTINUES TO PAY DIVIDENDS

Some years ago, Mrs Jean Drury (now deceased) provided \$300,000 to help kick-start the Global Health Diagnostics Laboratory, which has now matured into the **Burnet Diagnostic Initiative**, launched in 2021. Jean's second cousins Neville and Rosemary Castles continue to support the Institute and have seen Jean's investment in Burnet's capacity bear fruit.

“Through Jean's wonderful philanthropy, she has indeed been able to help so many people, and we know her generosity will continue to be her legacy.”

Rosemary and Neville Castles

BDI Burnet Diagnostics Initiative

The Burnet Diagnostics Initiative (BDI) is a Burnet Institute commitment to develop the systems, resources and processes to support diagnostics product development and enhance translation of its point-of-care diagnostics research into practical health solutions.

There is a clear need for the development of simple, low-cost and accurate tests that can be operated in the field without the usual associated infrastructure. Developing diagnostics that can be operated easily and effectively in remote and rural areas of the developing world is essential to improving the health of vulnerable communities. The BDI is working to fill that gap through rapid point-of-care diagnostics to maximise accessibility. Through strategic partnerships, BDI is building capacity in Melbourne for its internal research and engagement with the In Vitro Diagnostics industry.

“The new BDI will translate existing and new technologies to practical health solutions and products, and vitally, maximise their accessibility to vulnerable populations especially in the Asia-Pacific region.”

Professor Brendan Crabb AC,
Director and CEO, Burnet Institute

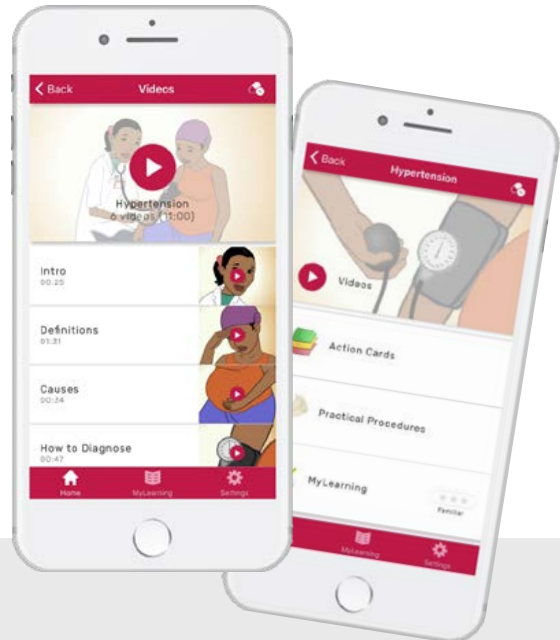
Thank You to our Supporters



Saving the lives of mums and babies in Papua New Guinea

Our supporters donated to put life-saving information in the hands of midwives and nurses in Papua New Guinea (PNG), funding the adaptation of the innovative Safe Delivery App.

The app provides up-to-date information and guidance to midwives, nurses and community health workers, including those in the most isolated areas, helping them to save the lives of mums and babies.



FEATURED SUPPORTER: THE FINKEL FOUNDATION

The Finkel Foundation, established by Dr Alan Finkel AC and his wife Dr Elizabeth Finkel AM (pictured left), has been a very generous supporter for many years, and in 2021 pledged to match donations dollar-for-dollar up to the total value of \$50,000 towards the adaptation of the Safe Delivery App for use in PNG. The Foundation's ongoing generosity and dedication to improving the health of mums and babies in PNG this year, and every other year, is very much appreciated.

In Appreciation

Gifts in Wills

Leaving a gift in your Will has a huge impact on advancements in science. We hope those who were close to the thoughtful benefactors below take comfort in knowing the legacy of their loved one lives on through our work and tireless commitment to helping those most in need.

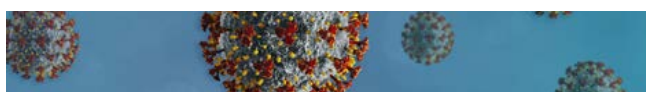
We thank the following benefactors posthumously for the gifts their estates provided to Burnet during 2021

- Mrs Gwen Burnet
- Mrs Jocelyn Therese Hutchinson
- Ms Marion Wakefield
- Mrs Gwyneth Smith
- Mrs Elizabeth Law-Smith

Trusts and Foundations

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

- CASS Foundation Ltd
- D & X Williamson Family Charitable Fund
- Drakensberg Trust
- The Financial Markets Foundation for Children
- Finkel Foundation
- The Hon Geoffrey Connard AM Travelling Scholarship
- Gilead Sciences, Australia and New Zealand
- Guthrie Family Charitable Trust
- Gwenneth Nancy Head Foundation
- Harold Mitchell Foundation
- Harper Family Endowment (Lush/Harper Family)
- HMA Foundation Pty Ltd
- Jasper Foundation
- Joe White Bequest
- John Burge Trust
- Joyce Adelaide Healey Charitable Trust Fund
- June Canavan Foundation
- Lindsay & Heather Payne Medical Research Charitable Foundation
- Margaret and John Crutch Bequest
- Margaret Walkom Bequest
- Margo, Bonnie and Emma Perpetual Trust
- Miller Foundation
- Nancy E Pendergast Charitable Trust Fund
- Naylor-Stewart Ancillary Fund
- Orloff Family Charitable Trust
- Paul Ramsay Foundation
- Percy Baxter Charitable Trust
- The Peter Leith Riddell Memorial
- Ruby C Thomas and Ronald R Fraser
- Thomas John Beresford Will Trust
- Upotipotpon Foundation
- W P Brown Family (Elizabeth & Nan Brown)
- Westpac Foundation
- Will and Dorothy Bailey Charitable Fund
- William Angliss (Victoria) Charitable Fund
- William & Georgena Bradshaw Charitable Trust
- Wyndham City Council



MAKING OUR COVID-19 RESEARCH POSSIBLE

With COVID-19 continuing to have a devastating impact around the world, our donors, trusts and foundations remained dedicated to supporting our COVID-19 research and public health programs.

In early 2021, we saw incredible support for the work of Dr Nick Scott, Head of Modelling and Biostatistics, and his team, who have been instrumental in informing the response to COVID-19 in Australia.

This support continued for research conducted by Burnet's COVID-19 Vaccine Development team, led by Dr Andy Poubourios and Professor Heidi Drummer, who are using a unique Burnet-engineered COVID-19 spike protein to create a vaccine designed to be effective against future variants of concern.



RESEARCH ACTION PARTNERS – MAKING A DIFFERENCE MONTH BY MONTH

530

Research
Action
Partners

A HUGE thank you to our 530 Research Action Partners who give to us regularly throughout the year. We could not do this without you – thank you!



Find out how you can support Burnet Institute's work. Contact us on (03) 9282 2111 or info@burnet.edu.au, or visit burnet.edu.au/support

Financial Summary

In 2021, the Institute spent AUD\$86 million on improving health in Australia and globally for a more equitable world.

BASIS OF PREPARATION

The Statements 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 information does not include all the information and notes normally included in a statutory financial report.

The statutory financial report (from which the summary financial information has been extracted) was prepared in accordance with Australian Accounting Standards (AASBs) 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.

OPERATING RESULT AND STATE OF AFFAIRS

The Group recorded a surplus in the current year of \$262,811,225 (2020: surplus \$60,688,036). The Group's operating performance for the year was underpinned by favourable results from philanthropy, returns on corpus investment, sustained funding for research activities, and the impact of divestment of the Group's interest in 360biolabs Pty Ltd.

In October 2021, 360biolabs Pty Ltd was sold to BioAgilytix Labs, LLC. The Group's 63.7% equity share of the sale proceeds amounted to approximately \$282 million. The proceeds were deposited into the Group's investment corpus which, at 31 December 2021, had a balance of approximately \$382 million. These funds, which represents windfall gains on the sale of strategic assets, will be used to pursue the Burnet Institute's vision for charitable purposes.

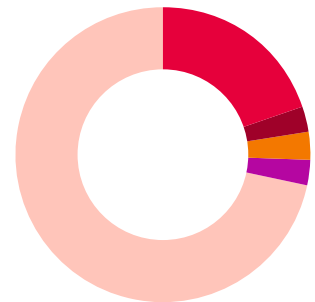
The 2021 consolidated result includes a deficit of \$55,714,311 (2020: surplus \$8,609,859) from the operations of 360biolabs Pty Ltd for the part of the year it was within the Group. This deficit was driven by a \$69,428,315 of incentive remuneration expense, for share options granted to 360biolabs executive directors in March 2021. These share options were linked to the successful sale of 360biolabs Pty Ltd and vested upon this event occurring.

Depreciation and amortisation was relatively consistent to the prior year, which amounted to \$5,669,518 (2020: \$5,731,018).

Other than for 360biolabs Pty Ltd and 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 2021



- Competitive Grants/Contracts: **19.8%**
- Operational Infrastructure: **2.9%**
- Fundraising: **3.1%**
- Investments: **2.7%**
- Asset Sale: **71.4%**

EXPENDITURE 2021



- Research/Health Programs: **69.8%**
- Facilities & Administration: **16.4%**
- Fundraising: **1.9%**
- Business Development: **5.2%**
- Amortisation/Depreciation: **6.6%**



Consolidated Statement of Profit or Loss and Other Comprehensive Income

(FOR THE YEAR ENDED 31 DECEMBER)

	Note	2021 \$'000	2020 \$'000
Revenue from continuing operations	3	88,944	68,567
Other income	3	329,735	63,570
Total Revenue and Other Income		418,679	132,137
Research and development laboratory consumables expenses		(6,998)	(6,223)
Personnel expenses	4	(106,975)	(31,558)
Depreciation and amortisation expenses	11	(2,070)	(1,576)
Depreciation and amortisation expenses – property management		–	(286)
Depreciation and amortisation expenses – Right of use asset		(3,599)	(3,869)
Research and development non-laboratory expenses		(9,499)	(10,020)
Facilities and laboratory support		(9,088)	(6,658)
Other administration		(10,060)	(6,488)
Interest expense		(1,853)	(2,013)
Net Surplus for the Year		268,537	63,446
Share of (loss)/gain in associate		(15)	122
Net results of Equity Accounting		(15)	122
Surplus before income tax		268,522	63,568
Income tax expense		(5,454)	(2,955)
Surplus After Income Tax		263,068	60,613
Surplus After Income Tax Attributable to:			
Members of the Company		283,629	58,604
Non-controlling interests		(20,561)	2,009
Surplus After Income Tax		263,068	60,613
Other comprehensive income			
Foreign currency translation differences – foreign operations		(256)	75
Total Comprehensive Surplus for the Period		262,812	60,688
Total Comprehensive Surplus Attributable to:			
Members of the Company		283,427	58,663
Non-controlling interests		(20,615)	2,025
Total Comprehensive Surplus for the Period		262,812	60,688

The Consolidated Statement of Comprehensive Income is to be read in conjunction with the Notes to the Consolidated Financial Statements.

The Group's total comprehensive surplus for the period includes the International programs deficit of \$1,105,000 (2020: deficit of \$774,000) and Domestic and other programs surplus of \$263,917,000 (2020: surplus of \$61,462,000). Refer to the Group's International Activities For a full copy of the 2021 audited Statement of Profit or Loss and Other Comprehensive Income.

Consolidated Statement of Financial Position

(AS AT 31 DECEMBER)

	Note	2021 \$'000	2020 \$'000
Current Assets			
Cash and cash equivalents		7,999	15,984
Trade and other receivables	6	8,024	12,230
Inventories		72	50
Other assets - prepayments		365	458
Assets held for sale	7	241	–
Lease receivables	8	508	–
Financial assets	9	332,288	81,309
Total Current Assets		349,497	110,031
Non-Current Assets			
Lease receivables	8	5,016	–
Financial assets	9	51,024	4,516
Right of use asset	10	46,790	50,440
Property, plant and equipment	11	4,285	6,330
Deferred tax asset	12	–	118
Total Non-Current Assets		107,115	61,404
Total Assets		456,612	171,435
Current Liabilities			
Trade and other payables		2,820	3,033
Lease liabilities and borrowings	13	2,228	2,204
Current tax liabilities	12	145	4,127
Provisions	14	5,322	4,565
Deferred income	15	30,340	23,481
Total Current Liabilities		40,855	37,410
Non-Current Liabilities			
Lease liabilities and borrowings	13	48,297	50,418
Provisions	14	986	992
Right of use liability	16	5,279	–
Deferred tax liabilities	12	–	611
Total Non-Current Liabilities		54,562	52,021
Total Liabilities		95,417	89,431
Net Assets		361,195	82,004
Equity			
Retained profit / (deficit)		362,468	78,609
Foreign Currency Translation Reserve		(53)	203
Non-controlling interests		(1,220)	3,192
Total Equity		361,195	82,004

The Consolidated Statement of Financial Position is to be read in conjunction with the Notes to the Consolidated Financial Statements.

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. In accordance with the ACFID code of conduct, the Institute had nil balances in the following categories as at the end of the financial year which are required to be disclosed separately:

- Current Assets: other financial assets;
- Non-Current Assets: trade and other receivables, other financial assets, investment property, intangibles, and other non-current assets;
- Current Liabilities: other financial liabilities and other current liabilities;
- Non-Current Liabilities: trade and other payables, other financial liabilities and other non-current liabilities.

Burnet Institute International Development Activities Operating Statement

(FOR THE YEAR ENDED 31 DECEMBER)

	2021 \$'000	2020 \$'000
Revenue		
Donations and gifts – monetary	194	224
Donations and gifts – non-monetary	–	–
Bequests and legacies	–	–
Grants:		
• DFAT	7,927	6,492
• Other Australian	815	571
• Other Overseas	7,202	6,622
Investment Income	–	–
Commercial Activities Income	–	–
Other Income	1,486	1,287
Revenue for international political or religious proselytisation programs	–	–
Total revenue	17,624	15,196
Expenditure		
International aid and development programs expenditure		
International programs:		
• Funds to international programs	17,396	14,552
• Program support costs	1,108	1,227
Community education	–	–
Fundraising costs:		
• Public	27	32
• Government, multilaterals and private	–	–
Accountability and administration	198	159
Non-monetary expenditure	–	–
Total international aid and development programs expenditure	18,729	15,970
Expenditure for international political or religious proselytisation programs	–	–
Domestic programs expenditure	–	–
Commercial Activities Expenditure	–	–
Other Expenditure	–	–
Total expenditure	18,729	15,970
(Shortfall)/Excess of revenue over expenditure	(1,105)	(774)
Other Comprehensive Income	–	–
Total Comprehensive Income	(1,105)	(774)

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.



ACFID
MEMBER

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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

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 2021. 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 the Group are consistent, in all material respects, with the Audited Financial Report, in accordance with the basis of preparation described in Note to the Summary Financial Statements.

The **Summary Financial Statements** comprises:

- i. Summary consolidated statement of financial position as at 31 December 2021
- ii. Summary consolidated statement of profit or loss and other comprehensive income for the year ended 31 December 2021
- iii. Burnet Institute International Development Activities Operating Statement for the year ended 31 December 2021
- iv. Basis of preparation note.

The Summary Financial Statements are contained in the Audited Financial Report on pages 9, 10 and 38. Page 13 has the Basis of Preparation note.

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 Auditing Standards* applied in 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 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 27 April 2022.

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

We draw attention to the note to 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.

The Auditor's Report is intended solely for 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 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 annual reporting which is provided in addition to the Financial Report and the Auditor's Report. The Directors are responsible for the Other Information.

Our opinion on the Financial Report does not cover the Other Information and, accordingly, we do not express 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 Financial Report, our responsibility is to read the Other Information. In doing so, we consider whether the Other Information is materially inconsistent with the Financial Report 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 in Note 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 2021.

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



Simon Dubois
Chartered Accountant
Partner
27 April 2022

Excellence. Innovation. Impact.

Patron-in-Chief:

Victorian Governor, the Honourable
Linda Dessau AC.

Chair:

Ms Mary Padbury,
BA, LLB(Hons).

Director and CEO:

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

Deputy Directors:

Associate Professor David Anderson,
BSc(Hons), PhD.

Professor Margaret Hellard AM,
MBBS, PhD.

Professor James Beeson,
MBBS, PhD.

Company Secretary:

Mr Peter Spiller,
BBus, CPA.
A.B.N. 49 007 349 984

Editorial Manager:

Tracy Parish

Design:

Made Visual

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 standard 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 these 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: Simon Dubois. Registered Company Auditor,
727 Collins Street, Melbourne VIC 3008.

Front cover image: iStock: Young child wearing medical mask as protection against COVID-19.





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OVERSEAS

We have offices or representatives in Australia, Papua New Guinea and Myanmar, and also contribute to activities in other Asian, Pacific and African countries.

For more information contact us at info@burnet.edu.au or call + 61 3 9282 2111.

A.B.N. 49 007 349 984



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