SPRING 2020

to you...

The COVID-19 response you are helping make possible

DONATE NOW







Unprecedented

From the moment COVID-19 emerged, here at Burnet we hit the ground running in response. And from that very same moment our supporters were right there beside us. Thank you.

I cannot tell you how remarkable it has been to see the overwhelming support we received for our COVID-19 Emergency Appeal. The immediacy and volume of support from our long-term donors, as well as the new supporters that joined us, made me very proud of the work we are doing, and of you.

Through the first lockdown across Australia, the relaxation of the restrictions, and into the second surge and lockdown in Victoria, we have remained focused, active and dedicated to research and public health activities critical to the response to COVID-19.

Thanks to you, we continue to advocate the critical importance of community-informed research to implement and sustain an effective response.

With your support, we continue life-saving public health programs, especially with our community's most vulnerable.

With your ongoing commitment, we continue research dedicated to finding reliable diagnostics, a viable vaccine candidate and antiviral drugs.

We continue assisting with the COVID-19 response in Papua New Guinea and Myanmar, the two countries where we have the largest staff presence.

COVID-19 is still with us, and here at Burnet we remain dedicated to fighting it.

Thank you again for standing alongside us.

Professor Brendan Crabb AC Director and CEO

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Cover: The COVID-19 response you are helping make possible.

#IWD2020



Professor Caroline Homer; Brooke Vandenberg; Associate Professor Margie Danchin (keynote); Lisa Davidson; Mary Padbury (Burnet Chair); Professor Gilda Tachedjian Our Maternal, Child and Adolescent Health (MCAH) team is dedicated to improving public health for communities not only in Papua New Guinea, but here in Australia. And thanks to you, our generous supporters, we raised over \$50,000 towards our lifesaving work. Thank you!

YOUR GIFTS IN ACTION

PROFESSOR CAROLINE HOMER AO, CO-PROGRAM DIRECTOR, MCAH

Working to improve vaccination rates **7** in Papua New Guinea *thanks to you*

Early this year Burnet hosted our annual International Women's Day (IWD) fundraising lunch in support of our Vaccination Program in Papua New Guinea (PNG) and its role in reducing death and disability from preventable diseases.

#WomenforResearch

Keynote, consultant paediatrician and researcher, Associate Professor Margie Danchin, from Murdoch Children's Research Institute, The Royal Children's Hospital and the University of Melbourne, shared her insights into the barriers and challenges in overcoming vaccine hesitancy and confidence in communities in Australia and our region.

Burnet's public health researchers, Lisa Davidson and Brooke Vandenberg, then described the many challenges facing our neighbours in PNG when it comes to getting children properly vaccinated. These range from travelling from remote locations to medical centres, often for several hours on foot, through to simply not having the health systems in place to track and record who has been immunised and when.

Collecting data on vaccine coverage is difficult in countries like PNG due to unknown child populations, unregistered births and deaths, and poor vaccination tracking – only 61% of children have accessible up-to-date vaccination cards. Ensuring decision-makers have access to timely, reliable and accurate data is essential for immunisation planning, resource allocation and disease surveillance. Without this, many children receive delayed or incomplete vaccinations and some children miss out entirely.

Meanwhile in Kokopo, Papua New Guinea, our Healthy Mothers, Healthy Babies research and community health staff celebrated IWD2020 with a special morning tea.



YOUR GIFTS IN ACTION

The COVID-19 response you are he



DIAGNOSTICS

Development of a rapid point-ofcare test to identify people who have been infected and cleared the virus.



ANTIVIRALS

Screening of novel drugs with antiviral action for their ability to prevent or treat COVID-19 infection.

Associate Professor David Anderson

"I want to thank everyone who has given to the Burnet COVID-19 Emergency Response Appeal. Your support has made it possible for us to make great progress in the six key areas of COVID-19 research: diagnostics; antivirals; vaccine; advocacy; public health and international health.

In my own lab, in work led by Senior Development Scientist, Huy Van, and working closely with Professor Heidi Drummer's group, we have made significant advancements in the development of a novel rapid point-of-care (POC) diagnostic test, and



can confidently expect it to provide a much-needed tool for contact tracing and widespread community testing for new and recent infections.

The key difference between this POC test and the many (more than 100!) POC tests

on the market is the use of Burnet's patented CSC technology, which provides a more accurate marker of recent infection than the traditional use of IgM for detecting recent infections.

We are very close to beginning independent validation studies of our POC test with partners in the USA and elsewhere, and are progressing with plans to have the tests widely available by the end of 2020."

Professor Gilda Tachedjian

There are over 370 potential COVID-19 treatments being tested in more than 500 clinical trials around the world.



As of August 2020, no treatment has been shown to be fully effective. However, in July of this year, remdesivir, an antiviral that targets a critical SARS-CoV-2 protein needed for virus replication, was

granted provisional approval from the Australian Therapeutics Goods Administration for the treatment of COVID-19 in individuals who are extremely unwell.

History tells us that the most effective drugs developed are based on understanding the fundamental mechanisms of virus replication, figuring out what the Achilles' Heel is, and then designing drugs that will target it. I think that's where the biggest breakthroughs are going to come. And that's where we're focusing our efforts at Burnet.

Thanks to everyone who gave to the Burnet COVID-19 Emergency Response Appeal. Your support has made it possible for us to join the worldwide race to develop effective drugs to combat COVID-19, and save lives."

YOUR GIFTS IN ACTION

lping make possible



VACCINE

Development and evaluation of antibody assays to understand the immune response to COVID-19 in humans.



ADVOCACY

Providing strategic advice to Australia's Chief Medical Officer, state Chief Health Officers and Departments of Health.

Professor Heidi Drummer

"There are currently over 100 vaccines in development for COVID-19. And more than 20 have now entered human trials. Here at Burnet we are working on a recombinant spike protein vaccine candidate, aimed at generating long lasting, powerful immunity to SARS-CoV-2.



We are currently selecting the best performing vaccine candidate to perform preclinical vaccination studies to demonstrate that they generate strong immune responses. Our

results will form the basis of competitive funding applications to progress this candidate to human clinical trials.

We are very excited by our early results and are compressing what can take years of work into just a few months.

> Thanks to everyone who gave to the Burnet COVID-19 Emergency Response Appeal. Your support has made it possible for us to advance to preclinical trials, and join the race to find a safe and effective vaccine for COVID-19 and help save lives."

Dr Ben Coghlan

From the moment COVID-19 emerged in Australia, Burnet has been working directly with the Australian Department



of Health to collate and provide rapid, data-driven technical briefs and policy options to federal and state Chief Medical Officers

across a broad range of key policy, public health and clinical responses.

I want to thank everyone who has given to the Burnet COVID-19 Emergency Response Appeal. Your support is enabling us to address gaps in knowledge and to provide strategic information on COVID-19 to inform both the Australian response and offshore responses in the countries where we work.

If you wish to browse policy briefs and reports, as well as global response analysis, technical briefs, and publications, please visit the Know-C19 Hub, the gateway to our COVID-19 work."



burnet.edu.au/covid-19/36



YOUR GIFTS IN ACTION

The COVID-19 response you are helping make possible



PUBLIC HEALTH

Improving our knowledge through public health measures to strengthen care and stop community transmission of COVID-19.



INTERNATIONAL HEALTH

Supporting COVID-19 responses in Papua New Guinea, Myanmar and other countries through modelling and other strategies.

Professor Margaret Hellard



"Right now there is no effective vaccine or drug treatments to control COVID-19. What we do have is public health interventions – physical distancing, quarantining and, in Victoria, the use of masks. We know from

decades of fighting diseases, that communityinformed research and response is needed to sustain an effective response to COVID-19.

The Optimise Study is a highly innovative study collecting information from individuals in



the community about public health interventions, and providing regular advice to state and federal government on how isolation, quarantining and physical distancing measures are impacting us all and how to respond.

We have been collecting and modelling data since March, and providing regular reports to government. This is helping inform changes to policies and response strategies, improve cross-cultural messaging, test feasibility and acceptability of strategies and develop approaches to help vulnerable groups in the community.

To everyone who gave to the COVID-19 Emergency Response Appeal – thank you. Your support is helping vulnerable groups and the general population successfully navigate isolation, quarantine and distancing expectations."

Associate Professor Leanne Robinson



"As most of our supporters know, Burnet has a strong presence across Papua New Guinea (PNG), working together with partners on tuberculosis, malaria, HIV and health systems strengthening, including our flagship Healthy Mothers, Healthy Babies (HMHB) Program in East New Britain.

Whilst COVID-19 has resulted in some of our activities being put on hold, program staff have hit the ground running to support the PNG response to COVID-19. They have been co-developing community health education material to build awareness of COVID-19 and how to minimise transmission, supporting COVID-19 diagnostics, health worker and laboratory staff training, and assisting with health service guidelines, procedures and policy briefs."

Dr Nick Scott

"We are also working on applying mathematical modelling across Africa. Modelling continues to be critical to our



successful response to COVID-19, as it enables us to assess the potential impact of policies before they are implemented.

Modelling so far has focused on high-income countries, but limited access to testing in low or middle income countries makes model projections even more

critical, to deal with data gaps and uncertainty.

Here at Burnet, we are one of the only groups providing advice for a variety of mitigation and control strategies in these low or middle income countries. And your support is helping to keep that happening. Thank you."

Social justice drives Fiona Athersmith to become a Research Action Partner



As a journalist, I've covered war, famine, politics – and more – in some of the most troubled places on earth. Social justice is vitally important to me, and this is why I support Burnet.

Being a Research Action Partner is important to me. Every month when I make my contribution, it reminds me of how grateful I am to be in a position where I can help improve life for others who are living in far less privileged circumstances.

I'm passionate about how Burnet not only does ground-breaking research in the labs but, most importantly, applies that research to directly assist vulnerable people and communities.

And vitally, Burnet's work is sensitive to the values, customs and behavioural aspects of local communities. Burnet's programs help empower local people, so initiatives are better adopted by the community, and can make a real, lasting impact. Supporting Burnet's breakthrough work in the lab and in the field makes me feel part of a team making a powerful difference in the world.

If you want to know more about becoming a Research Action Partner please visit: burnet.edu.au/monthly-giving or email Nisha Solanki at: nisha.solanki@burnet.edu.au

Each edition we will feature a story from one of our supporters, like you. If you have a story you would like to share, please email: ashley.sievwright@burnet.edu.au.

IN MEMORY

Shirley Carn,

a loving mother, an avid gardener, and a passionate supporter of our HIV research.

Sadly, Shirley passed away in April this year but she will be fondly remembered for her advocacy of LGBTI communities and HIV research.

We thank Shirley for her many years of support and for her bequest to the Institute.



COMMUNITY ENGAGEMENT

Keeping in touch in the time of COVID-19

We have all had to find new ways of doing things since the COVID-19 pandemic emerged – new ways to work, keep in touch with family and friends, school our kids or grandkids, and keep active.

Like everyone else, here at Burnet we're learning to do things differently.

Professor Brendan Crabb has been sending out regular email updates on our COVID-19 research and health response, and instead of our annual mid-year supporter event at the Institute, we hosted two COVID-19 Online Information Sessions.

We had a fantastic response to both information sessions, including supporters from interstate and overseas, some of whom we were able to directly engage with for the first time.

Thank you to everyone for being so receptive to this new way of keeping in touch.





To watch the COVID-19 Online Information Sessions, visit: burnet.edu.au/news/1280





Are you on our email list? If you don't want to miss out on future email updates and online information sessions, please send us your email address by completing the enclosed survey and returning it in the reply paid envelope.

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