

AUTUMN 2020

Thanks to you...



One step closer to
saving the lives of
babies born with HIV

DONATE TODAY



Burnet Institute
Medical Research. Practical Action.



My personal thanks

I am very grateful to have the opportunity to write a few words at the opening of this edition of the newsletter, as I want to personally thank you for your generous support throughout 2019. Your gifts have really made a difference - to me, and ultimately to women and babies.

I was especially pleased to see that one of the most successful appeals in 2019 was in support of the Alastair Lucas Endowment Fund. Alastair, a past Chair of the Board, made an enormous contribution to the Institute and, after his tragic death, the Board established a prize in his name. The prize is designed to attract researchers to Burnet and allow them to begin their research or project work immediately, instead of spending valuable time seeking funding.

I was lucky enough to be the first recipient of the Alastair Lucas Prize. It enabled me to begin work immediately on the critical next stage of the Healthy Mothers, Healthy Babies (HMHB) project in Papua New Guinea (PNG), another project that many of you very generously supported throughout 2019.

It's fantastic that so many supporters like you recognise the importance of the Alastair Lucas Prize and the valuable part it plays in allowing researchers like me to 'hit the ground running' – there's no time to be lost when lives are at stake.

Finally, I'd like to thank all our supporters who attended the Burnet Institute International Women's Day luncheon early in 2019. As Chair of the Burnet Institute Gender Equity Diversity & Inclusion Committee I was thrilled to see so many people keen to support women in science.

Best wishes, and my personal thank you to everyone who chooses to support the Alastair Lucas Fund, HMHB, and women in science.

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

**FOR YOUR DIARY
INTERNATIONAL
WOMEN'S DAY 2020
SUNDAY 8 MAR**

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Cover: One step closer to saving the lives of babies born with HIV.



The Healthy Mothers
Healthy Babies team



Keosu and I would like to say thanks to everyone who donated to the **Low Birth Weight in PNG Appeal** over the Christmas period. It's thanks to you that other mothers here in PNG like me will learn how to avoid having a low birth weight baby in the future.

MS PRISCAH HEZERI, RESEARCH OFFICER, HMHB

YOUR GIFTS IN ACTION

A special *thank you* from Priscah and Keosu in Papua New Guinea

In PNG, Christmas is a time when people living in the cities and towns return to their home villages to spend Christmas with their family.

Traditional ceremonies are often scheduled around Christmas because everyone is together. Also, in the highlands region of PNG, Christmas is usually celebrated with a Pig Feast.

Keosu and I hope you also enjoyed time with your family and your own traditional feast over the holiday period.

It's now three years and eight months since Keosu was born, early and of low birth weight. I think back to those days in the hospital immediately after she was born. She was so small, but I'm happy to say she's recovered well. Yes, she's had small things, like flu and coughs and things like that, but thankfully she has never had any major health problems.

I know how lucky we are. I know that a baby born too small can die. A baby born too small can have

ongoing health problems throughout its life – but not Keosu. I'm so grateful and thankful that she is running around, healthy and happy and excited to start school this year, just like a girl her age should be.

I would like to thank you again for your donation. It's so generous of you. It will mean that the HMHB program can help us understand the causes behind low birth weight in PNG. It will mean that other mothers can have their babies come straight home from the hospital with them – because that's what all mums want.

With love from Priscah and Keosu

Thanks to the generous gifts of our donors, we can confirm that the next phase of our HMHB program, the Low Birth Weight Study, is able to go ahead in 2020. Thank you!

One step closer to saving the lives of babies born with HIV

Women account for more than half the number of people living with HIV worldwide.

Much has been done to reduce mother-to-child transmission of HIV, but much more still needs to be done.



Thanks to the combination of a breakthrough in the Burnet laboratories and your very generous gifts, we're a step closer to being able to quickly and accurately test babies for HIV in even the most isolated areas of

the poorest countries. Knowing without delay which babies need HIV treatments will save lives in the future.

ASSOCIATE PROFESSOR DAVID ANDERSON, CO-HEAD, GLOBAL HEALTH DIAGNOSTICS LABORATORY



HIV point-of-care tests save lives

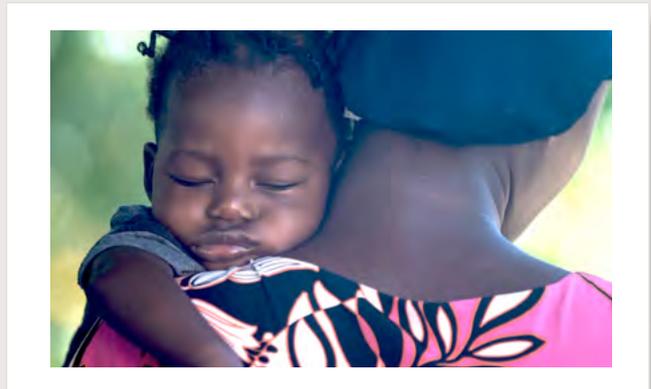
Point-of-care HIV tests are incredibly important to medical practitioners out in the field. They operate by producing a reaction with HIV antibodies in the blood of the patient, providing a colour response, much like a pregnancy test.

Unfortunately, babies cannot be tested in this way. If a newborn has been infected with HIV from its mother in the womb, or during childbirth, it is impossible to tell with existing point-of-care HIV tests.

So when Professor David Anderson and his team found a way that could make testing babies for HIV with a point-of-care test a possibility, it was an incredibly important breakthrough. If it worked, it would help save the lives of thousands of babies born with HIV around the world.

Your gift makes an HIV point-of-care test for babies a real possibility

Seeing the results in the lab shows us that it is possible to get a robust response to a baby's antibodies in a point-of-care test. That means we are ready to go on to the next step in the process.



So what is the next step?

In order for the test to be given the go-ahead for clinical trials, we must provide a body of evidence that it works – often referred to as “proof of concept”. That means rigorous development and testing, until there are a series of positive results providing statistical significance.

Thanks to the generous support of donors like you, we are able to source the very specific blood samples and reagents needed to do this string of necessary tests. Without your help we could not have progressed to this next step, and the end goal of saving lives of babies born with HIV would be out of reach.

Delivering your gift

where the need is greatest

“

Thanks to the donors who support our work ‘where the need is greatest’. Donating funds in this way allows us to react quickly, divert funds to support new discoveries and keep long-term research projects on track. Following are just three highlights from projects at Burnet partly supported by these funds.

PROFESSOR BRENDAN CRABB AC, DIRECTOR AND CEO



Global Fund approval for HIV diagnostic

A simple, low-cost, rapid HIV diagnostic developed by Burnet and commercialised by our partners at Omega Diagnostics, UK, has been endorsed by the Expert Review Panel for Diagnostics (ERPD).

This means that the test may be procured with Global Fund and/or UNITAID funds, which support major aid agencies operating in many of the poorest countries in the world.

Aid agencies delivering HIV care to people in disadvantaged communities around the world will benefit from this innovation.

TB diagnostic trial in PNG a potential lifesaver

Recruitment for a trial of a new and potentially life-saving rapid diagnostic for tuberculosis (TB) has started in PNG. The trial is supported by Burnet and the National TB program of PNG.



PNG has one of the highest prevalence rates of TB in the world, with 30,000 new cases reported every year. TB is one of PNG's leading causes of death, but is also preventable and curable.

The battery-powered and phone-operated device, called the Truenat, can detect TB and antibiotic-resistant TB from sputum samples in one-to-two hours.

It's designed to address an urgent need for accurate, cheaper, point-of-care TB diagnostics for use in rural and remote areas.

First video of malaria parasites being repelled by red blood cells

In a world first, Burnet researchers have captured on video the moment a malaria parasite tries to invade a red blood cell.



The video, which shows two antibodies repelling the parasites, helped Oxford University scientists solve a mystery in their own laboratories. They needed to know precisely how the two types of antibodies were working together to fight the malaria parasite. They had a hypothesis, but the Burnet video provided important validation of their research.

Dr Paul Gilson and his team are international leaders and trailblazers in this imaging technology. And the Oxford research has the potential to lead to the development of a world-first effective malaria vaccine.

2019 *Supporter Survey* the results are in

Thank you for making our 2019 Supporter Survey a great success.

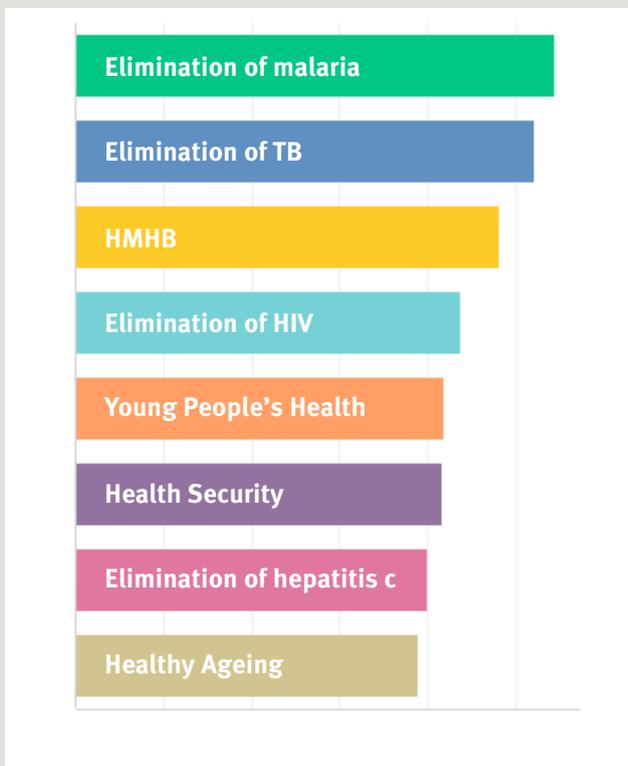
We had an overwhelming response, with one in four supporters completing the survey, and we really appreciate the time and effort you have taken.

Support from committed donors like you is critical to everything we do, which is why it is crucial that we know how you feel about our work, what interests you most, how you'd like to support us, and how you prefer to be contacted.

Your privacy is very important to us, and your individual details and responses are treated as strictly confidential. We will not share these with any third parties. We have however compiled a key summary of the results that may be of most interest to you.

Areas of our work of most interest

It was fantastic to see that the majority of our donors were most interested in supporting our work eliminating malaria and TB, along with the Healthy Mothers, Healthy Babies program.



57% of our supporters are tertiary educated.

52% have travelled to countries where Burnet works.

19% are considering or have left a gift to Burnet in their will.

5% are considering making a generous gift of at least \$5,000.

Other ways to support Burnet

Around 33% of supporters were willing to consider supporting Burnet in different ways. The top two responses to this question were about inviting relatives, friends and colleagues to events at Burnet, or giving gifts to Burnet in lieu of flowers at a funeral.



If you would like more information about how to support Burnet in other ways, please contact us on giving@burnet.edu.au or call on (03) 9282 2111.

DONOR PROFILE

How *Mary Clancy* came to be a strong supporter of our work in PNG



After a career as a teacher and a number of years as a Pastoral Assistant, in retirement Mary Clancy fulfilled a long-held wish to visit the Presentation Sisters Mission in Papua New Guinea (PNG).

“I remember very clearly arriving in Wewak. Sister Felicity and friends welcomed me in song. We then boarded the ‘Sisters’ Truck’, and started out for the convent in Aitape. However, we could not get through as the road was flooded and we were forced to return.

“Thankfully there was no rain overnight, and we set out once again on the bumpy road, dodging large potholes and crossing fast running rivers. Six hours later we arrived at the convent in Aitape. This was the beginning of two weeks of asking and answering questions, listening, seeing, learning, being involved, standing in awe. I visited the local hospital, schools, programs

for people with disability, and met a group of people who, with the sisters, visited hospitals and jails.

“A highlight for me was the day we travelled three hours in the truck to visit the four National Presentation Sisters living in Arop. **Driving home at dusk we were hailed by a man who appeared incredibly distressed. His wife had been in labour for three days. He asked if we could take her to the nearest medical centre.** We said yes and the young woman struggled out to the truck with her husband. We set off in the dark. There were no street lights. No public transport.

Thankfully we came upon the centre and the bell was answered by a nurse.

“

Driving away we were not very hopeful. Would mother and baby survive?

”

“Three days later I was visiting the hospital in Aitape. I saw a very happy mother sitting on the edge of the bed feeding her baby, who was to be called Mary!

“Eventually the time came to say goodbye and thank-you to my friends who very generously shared their time and talents.

“Rain, flooded rivers and bumpy roads will quickly fade from my memory. However, memories of warm welcomes, shared stories, and friendships offered will remain forever.

“**When I read about the work Burnet was doing in maternal and child health in PNG, I remembered the distressed man and his wife. The baby she called Mary. I felt I had a small understanding of the challenges facing mums and babies in that country, and a very clear memory of the warmth and spirit of the people. It gave me great pleasure to begin supporting Burnet’s work in maternal and child health in PNG.**”

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.siewwright@burnet.edu.au.

DONORS VISIT THE BURNET LABORATORIES

We love it when you come and visit us in the labs

Joanne and William Crothers, from the Upotipotpon Foundation

Joanne and William, long term donors to Burnet Institute, visited the Burnet laboratories to view the Magpix machine, which was purchased with their generous donation. The Magpix helps researchers understand cell-to-cell interaction and fast-track the development of new diagnostic tests, vaccines and therapies for the prevention, diagnosis and treatment of disease.

Very special thanks to Joanne, William and the Upotipotpon Trustees for their ongoing support of Burnet Institute.



Friends of the United Church of Papua New Guinea & the Solomon Islands

Our researchers recently hosted a lab tour for the Friends of the United Church of Papua New Guinea and the Solomon Islands, a group of people who worked in PNG in various professions – teaching, government, clergy, medicine, etc. After seeing first-hand the struggles of the people in PNG, they have pledged to make a difference where they can. They are keen supporters of the work Burnet is doing in Papua New Guinea.

Lab tours are available for those who are interested. Please contact us on (03) 9282 2111.

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