Welcome to the spring issue of IMPACT.

As many of you know the Institute has been mourning the tragic death of our long-serving Chair, Alastair Lucas AO in July. Ironically, this champion of medical research died far too young of a brain cancer for which science has not yet discovered an answer. In this issue we reflect on the significant contributions Alastair made to Burnet Institute during his 12-year tenure. To recognise and celebrate his achievements the Institute has established the Alastair Lucas Endowment Fund that will support the Alastair Lucas Prize for Medical Research in perpetuity. This internationally competitive prize will fund a talented mid-career researcher to work at Burnet with a focus on research relating to our mission; improving the health of the poorest and most vulnerable people in Australia and the world. I would welcome your support of the endowment fund. More information is available at burnet.edu.au/alastairlucas.

I take this opportunity to welcome long-serving board member Mr Robert Milne as Burnet’s incoming Chair. Rob has served the Institute as a non-executive director since 1998 and stepped in as interim-Chair when Alastair became ill last year. He brings a wealth of corporate experience with him, especially through his career as CEO, then Chairman, of Cockram Constructions. We look forward to Rob’s leadership and working together as we commence a new phase of the Institute’s growth.

In this issue of IMPACT we also focus on disease elimination, highlighting the challenges of eliminating malaria, a disease that claims more than 600,000 lives each year. There is a renewed commitment globally to the possibility of eradication and elimination of infectious diseases. However, only smallpox has been successfully eradicated to date, where the global incidence of infection has been totally reduced to zero. Polio and measles are prime examples of what can be achieved through effective vaccination and treatment programs. But can diseases such as malaria, HIV and hepatitis C be effectively eliminated?

While Burnet is already engaged in research focusing on the elimination of infectious diseases, our plans are to ramp that up significantly into the future. Our malaria researchers recently discovered how antibodies work in partnership with other proteins in the blood in blocking malaria infection, opening the door towards an effective vaccine and this, together with other interventions offers real hope for elimination.

The development of a newly available class of drugs and new candidate vaccines offers potential for the elimination of hepatitis C. While the new drugs offer significant hope for a cure to those already infected with the virus, the combination of vaccination and drug treatment means that the potential for elimination of hepatitis C is very real. Similarly, the HIV cure initiative, new drugs and the potential that pre-exposure prophylaxis (PrEP) offers, means that elimination of HIV is also a very real possibility.

We have initiatives that relate to hepatitis C, HIV and malaria elimination – and we plan to do much more. Much of this work can only be made possible with your support, so thank you for all you do in helping make this possible. As always I am happy to talk about any aspect of the Institute’s activities and how you can help us to achieve a healthier world.

Professor Brendan Crabb AC
Director and CEO
Robert Milne
the new Burnet Institute Chair

Long-serving board member, Robert Milne is the incoming Chair of the Board, following the sad passing of Burnet champion, Alastair Lucas AO.

Mr Milne, who has spent more than 15 years on the Board, was Acting Chair from September 2014 when Mr Lucas was diagnosed with a terminal brain tumour. He has pledged to do all in his power to honour the “amazing contribution” of the man he succeeds.

“Alastair's contribution to Burnet Institute has been enormous, helping to steer the Institute through many challenges over the 12 years of his tenure as Chair and three years as a non-executive director,” Mr Milne said.

“He leaves behind an amazing contribution and shoes that are very hard to fill, but fill them we shall, as we seek to enhance the scope, nature and output of Burnet to fulfil Alastair's dream of improving the health outcomes of poor and marginalised communities in Australia and internationally.

Mr Milne has a background in engineering and more than four decades of experience in the construction industry. He has been Chairman of Cockram Construction since 2000. He joined Cockram in 1984 as Managing Director and helped to establish it as a specialist high-tech design and construction contractor throughout Australia and Asia.

NANJING BIOPOINT LABORATORY LAUNCHED

Burnet Institute’s vision of a long-term engagement in China has taken a major step forward with the launch of the R&D laboratory facility for the Burnet spin-off company, Nanjing BioPoint Diagnostics Technology Co. Ltd.

Burnet Institute Deputy Director, and President and CEO of Nanjing BioPoint, Associate Professor David Anderson said the facility, officially opened by the Australian Ambassador to China, HE Ms Frances Adamson, would translate Burnet’s diagnostic research and technologies into commercially viable products.

“Nanjing BioPoint is a strong signal of our long-term commitment to collaborative research and development in China, and will facilitate timely delivery of new health technologies to our target populations worldwide through cost-effective commercial development in conjunction with our investment partners at GuoMinXinHe Group,” Associate Professor Anderson said.

“This venture also provides a tangible funding stream to support the wider work of the Institute with vulnerable communities in the western provinces of China and other resource-poor settings.”

A point-of-care (POC) test to identify undiagnosed liver disease is the first target of R&D and commercialisation at Nanjing BioPoint in conjunction with Burnet's Melbourne-based laboratory team.

“This POC liver test will help fill an unmet medical need for patients, especially those living in low-income countries where laboratory testing is difficult to access and expensive,” Associate Professor Anderson said.

Above: Australian Ambassador to China, HE Ms Frances Adamson with President Bai Muchun from GuoMinXinHe Group (middle) and Burnet board member, Mr Ben Foskett.
Undoubtedly, Alastair Lucas loved the Burnet Institute. When he joined the Board in 1998 he was committed to making a difference, to enhancing Burnet's business and strategic opportunities, to ensuring its mission was achieved through a culture of excellence, innovation and impact.

He became part of the Burnet family, serving on the Board from 1998-2014, and as Chair for 12 of those years. Sadly, aged 63, Alastair passed away on 6 July 2015 after being diagnosed with an inoperable brain tumour the previous year.

Close friend, and Institute Director and CEO, Professor Brendan Crabb AC said Alastair’s passionate commitment to medical research and international health had touched many lives.

“Alastair leaves an outstanding legacy for all those whose lives were touched by him, and the many lives saved through his generosity and passionate support of medical and public health research,” Professor Crabb said.

Alastair’s contribution, not only to Burnet, but Australian public life, had been exemplary.

“He was a great believer in science and its application to create a healthier, more equitable and better world. He was a passionate supporter of our work and our mission to achieve better health for the poorest and most marginalised people in our own community and throughout the world.”

– PROFESSOR BRENDAN CRABB AC
Australia’s Federal Health Minister, the Hon Sussan Ley MP shared Prime Minister Tony Abbott’s reflections on the impact that Alastair had achieved through this advocacy for better health for poor and vulnerable people.

“Alastair made an impressive contribution to our nation as a businessman, philanthropist and humanitarian, and he inspired those around him with his wisdom, dedication and sense of duty. Alastair’s legacy is enshrined in part by the Medical Research Future Fund. He was a tireless advocate for increased support for medical research, and the fund, as well as the Fellowship established in his name, will be a lasting memorial to him,” Minister Ley said.

Professor Graeme Samuel AC first met Alastair in the 1980s and said he was grateful for so many years of friendship, support, wisdom and above all his unqualified integrity.

“He was the significant driving force behind the establishment of Burnet as a sustainable international leader in research into infectious diseases.

He will be remembered for his extraordinary intellect, his involvement in significant conservation causes, and most importantly, his quest for a sustainable resource dedicated to medical research,” Professor Samuel said.

New Burnet Institute Chair, Mr Rob Milne has pledged to honour the “amazing contribution” of his predecessor and said Alastair’s vision and passion for Burnet’s work would live on through the Alastair Lucas Endowment Fund.

“Our lives are all enriched by having known and loved this greatly honourable man.”

– MR ROBERT MILNE

Alastair Lucas Endowment Fund

The fund will support in perpetuity the Alastair Lucas Prize for Medical Research into diseases affecting poor and disadvantaged communities. It was launched with generous financial contributions from Founding Partners, Goldman Sachs Australia, the Macquarie Group and GuoMinXinHe Group.

To make a donation go to burnet.edu.au/alastairlucas
Malaria is a disease of poverty. Of the 600,000 deaths attributed to malaria each year, most are caused by Plasmodium falciparum in African children younger than five years of age. This is despite increased global efforts that have halved malaria-related deaths in recent years.

In an era of emerging resistance to frontline treatment drugs and vector control interventions, there is a renewed commitment by the malaria community, global leaders and major funding organisations towards malaria elimination. Short term, the goal is to eliminate the deadly disease from as many regions as possible, and ultimately to achieve global eradication in the future.

Major gains in reducing the global malaria burden have been achieved in the past decade through increased control measures such as insecticide-treated bed nets, access to early diagnosis and effective treatment, and increasing the use of the most effective group of antimalarial drugs, artemisinins (typically artesunate, artemether, or dihydroartemisinin). However, malaria remains a major health issue, affecting an estimated 219 million people each year, mostly in the regions closest to Australia and where Burnet Institute works, such as Papua New Guinea (PNG), Myanmar, Lao PDR, Timor-Leste, Indonesia and sub-Saharan Africa.

While the recent reduction in malaria burden is a tremendous achievement, there are major challenges ahead to progress towards malaria elimination. Ongoing innovative research to develop and evaluate novel antimalarial drugs, vaccines, and diagnostics is needed, along with developing new strategies for malaria elimination and surveillance in affected populations.

Burnet’s malaria program is strongly aligned with the global vision for malaria elimination. Our research is addressing several key areas and activities that aim to strengthen malaria control and build capacity in PNG, Myanmar and Timor-Leste.

Resistance to antimalarial drugs and insecticides

An emerging global crisis in malaria treatment and control is the emergence and spread of resistance to the artemisinin drugs. These are the frontline treatment for malaria and currently used to treat several hundred million cases of malaria each year. Resistance initially emerged in Cambodia and appears to be spreading or developing in other Asian countries, and there is increasing concern resistance will also eventually develop in Africa.

Currently, there are no new drugs in the immediate pipeline to replace the artemisinin. Meeting this challenge, the Fowkes Laboratory at Burnet is involved in studies tracking and containing artemisinin resistance in the Mekong region of South East Asia, investigating how malaria immunity influences drug resistance, and developing tools to predict resistance and contain it. The Gilson/ Crabb Laboratory has been conducting research into the malaria parasite’s biology to identify ‘chinks in its armour’ that can be exploited as targets for new antimalarial drugs. Already compounds have been discovered that prevent parasites from infecting red bloods cells where they cause disease and for starving the parasites to prevent them from growing.
Vaccines

There is an urgent need for the development of highly effective vaccines to protect people against malaria and to advance malaria elimination. Vaccines have proved to be extremely valuable in the control and elimination of other infectious diseases. Developing highly protective malaria vaccines has proved hugely challenging partly due to our limited understanding of immunity to malaria. Recent work by the Beeson, Richards, Fowkes, Jaworoswki and Ramsland laboratories have made major insights into human immunity to malaria, revealing key immune mechanisms that prevent and clear malaria infection. Studies have shown that antibodies produced by the immune system recruit a group of blood proteins known as complement, or immune cells called monocytes, to effectively kill or neutralise malaria. Burnet researchers believe that generating this type of double-punch immune response could be crucial to developing highly effective malaria vaccines for elimination. With the Head of Burnet’s Diagnostic Development Laboratory, Associate Professor David Anderson, the malaria team is also using a novel vaccine platform to generate highly effective vaccines, in partnership with Artes Biotechnology and the PATH Malaria Vaccine Initiative.

Improving access to treatment and prevention

Maximising access to early diagnosis and effective treatment of malaria, insecticide-treated bed nets, and preventive treatment in high-risk groups (young children and pregnant women) are all part of a global strategy in the fight against the disease. However, in many areas access to essential treatment and prevention is still low. Since 2012, Burnet has been implementing community-based management of malaria programs in East New Britain Province in PNG, and more recently on the Myanmar-Thailand border that aim to maximise access to malaria testing and effective malaria treatment using community volunteers. Research is also underway to quantify the coverage of malaria prevention and control measures, and identify gaps that can be filled as part of Burnet’s Healthy Mothers, Healthy Babies program. This important work is in collaboration with key partners and stakeholders in PNG including the East New Britain Provincial Government, the PNG Institute of Medical Research, National Department of Health, and University of PNG. In Myanmar, Burnet collaborates with Karuna Myanmar Social Services and the National Malaria Control Program.

Recent gains in malaria control have ignited a great sense of optimism about the future elimination of malaria. However, this will require a long-term commitment with many major challenges to overcome. Burnet’s malaria research and implementation teams are strongly committed to this long-term goal, working closely with our partners nationally and internationally.

MALARIA

is caused by the parasite Plasmodium, which is transmitted via the bites of infected mosquitoes. In the human body the parasites multiply in the liver and then infect red blood cells. If not treated, it can quickly become very serious and life-threatening by disrupting the blood supply to vital organs.

The first symptoms – fever, headache, chills and vomiting – may be mild but if not treated within the first 24 hours a child can become severely ill.
Discovery of malaria-blocking immune response opens door for vaccine
This breakthrough research by Professor James Beeson and his team was published in the prestigious international journal, *Immunity*. The discovery of how antibodies work in partnership with other proteins in the blood, known as complement, in blocking malaria infection, opens the door towards an effective vaccine. This new research provides evidence that complement plays a key role in antibody-mediated immunity to blood-stage replication of *Plasmodium falciparum* malaria in humans. (Fig 1).

“Exploiting this malaria-blocking activity is a new approach in developing a vaccine. We have shown that it is possible to effectively generate this protective immune response by immunising humans with a candidate vaccine,” Professor Beeson said.

“Creating a vaccine that can rapidly induce this type of immune response in children to prime the immune system to fight malaria when infected, may prove a valuable strategy to prevent the devastating effects of malaria.”

A first: Live cell imaging of malaria
For the first time, Burnet researchers have captured how certain proteins are used by the malaria parasite to invade a red blood cell. Using highly specialised video equipment Dr Paul Gilson and his team documented the invasion of red blood cells by the malaria parasite in real time. By blocking different proteins the parasite uses for invasion and observing what happens to the parasite, the researchers could establish what the proteins are doing and in what order they were working. It is an important step towards vaccine development.

“It has enabled us to ascribe more precisely the roles of the different proteins. What’s new is that no one’s ever taken this approach before,” Dr Gilson said.

The research was published in *Nature Reviews Microbiology*.

New insights into how monocytes attack the malaria parasite
Researchers from the Jaworowski Laboratory have identified the type of monocyte – white blood cells critical to immune function – best equipped to attack the malaria parasite, along with new insights into how the monocyte does this. Published in the journal *BMC Medicine*, the research identifies intermediate monocytes as responsible for ingesting red blood cells infected with the malaria parasite, which is important for the control of malaria in the blood and for orchestrating subsequent immune responses. They noticed the special role of intermediate monocytes by experimenting using whole blood rather than the conventional approach using purified white blood cells. The research is a step towards the development of a test that will predict the effectiveness of vaccines.
Burnet Institute Chair visits PNG

By Mr Robert Milne

Just getting to and from Kokopo in East New Britain Province in Papua New Guinea was an experience in itself. After flying to Brisbane for an overnight stop, then on to Port Moresby, our connecting flight to Kokopo was cancelled requiring an overnight stay, cutting short our stay in Kokopo by a day.

After being met by some of the team from our Kokopo office, we visited a village where the Ward representative (village elder) Gregory and Mary, a volunteer, explained how the malaria program, funded by The Global Fund, operates.

Our team led in Kokopo by Hadlee Supsup has recruited 100 local volunteers, equipped them with point-of-care malaria test kits, trained and supervised them in their use, and dispensed the antimalarial, Malar1. The outcomes are proving very beneficial, including early diagnosis and treatment for malaria, referral to health centres for people with continued fever (pneumonia, bronchitis etc), and a great sense of commitment and pride from the local volunteers and their supporters.

Our Healthy Mothers, Healthy Babies (HMHB) program, which is a major Burnet initiative, is funded totally from philanthropic donations and led by Professor James Beeson. Dr Michelle Scoullar is leading the project in Kokopo, assisted by a wonderful team of employees who have been recruited from the local communities. We are working in close collaboration with the PNG Department of Health, Kirby Institute, St Mary’s Hospital, and local hospitals and health centres. Community involvement is critical to our success.

The driver for the HMHB program is the extremely poor health outcomes for mothers and their babies in the antenatal and postnatal stages. Using strong scientific principles the program is identifying the prime causes of these adverse outcomes and will lead to the development of new interventions to improve the health of these communities.

The scale and complexity of the program are massive. Dr Scoullar and her team are recruiting a cohort of 700 women, testing them at five stages of their pregnancy from first identification through to delivery, then one month, three months, six months and twelve months after birth. Samples, including blood and urine are processed, recorded and analysed in a specially fitted-out Burnet laboratory at St Mary’s Hospital. Some samples are sent to other labs for further testing and reference samples are sent to Burnet’s Melbourne laboratories for safekeeping at -80°C conditions.

My congratulations are extended to everyone involved in this Burnet flagship program, especially the tremendous support provided by our donors.

Mr Milne travelled with Burnet Director and CEO, Professor Brendan Crabb AC, Head of Public Affairs and Development Mr Paul Rathbone, and long-time Burnet supporter, Dr Elizabeth Xipell.

“I have just returned from my first visit as Chair to PNG to see first hand the malaria and Healthy Mothers, Healthy Babies programs. What an eye-opener it was!” – Mr Robert Milne
Since the late 1990s Burnet Institute has been active in Myanmar, building initially on small consultancies and capacity support, to establishing an office in the capital Yangon and working in each of the 14 States and Divisions. This has been possible through a historic Memorandum of Understanding (MoU) with the Ministry of Health signed in 2003, which formalised Burnet’s presence as an international non-government organisation (NGO) in the country.

More than a decade on, with a recently updated MoU, Burnet’s Myanmar Program is delivered and managed by a core team of national staff in Yangon, and supported by our Melbourne headquarters. The core approach is to strengthen national and community health systems and services with civil society partners, international organisations, UN agencies and Government stakeholders across 86 townships.

Burnet’s Country Program Manager for Myanmar, Ms Lia Burns outlines the challenges faced in responding to ongoing and emerging needs in a country experiencing significant and rapid socio-political and economic growth.

“Significant disparities in wealth and opportunity remain despite recent political changes that have resulted in progress toward development and resourcing of comprehensive development strategies for the social sectors,” Ms Burns said.

“At least a quarter of the censused population in 2014 of 52 million people live below the poverty line, with five per cent living in absolute poverty.”

The three priority areas that respond to nationally identified health issues are also aligned to Burnet’s areas of specialisation and globally recognised expertise – major infectious diseases; maternal, neonatal and child health; and adolescent health.

“Burnet Institute has been actively involved in health programs in Myanmar for more than a decade and it is testament to the outstanding abilities and efforts of our international operations staff that we continue to make a positive impact.”

– PROFESSOR BRENDAN CRABB AC, DIRECTOR AND CEO, BURNET INSTITUTE
Major infectious diseases – HIV, tuberculosis and malaria

These preventable diseases are the leading causes of death and illness in Myanmar resulting in diminished economic, educational, and socio-political opportunity and participation.

“Our program seeks to prevent, diagnose and ensure treatment and care for vulnerable populations susceptible to these infectious diseases, and to minimise the burden of ill health,” Ms Burns said.

“For example, we are currently working with key affected populations of people who inject and use drugs and men who have sex with men where the HIV prevalence is highest (23 per cent, 6.6 per cent).”

Maternal, neonatal and child health

Outcomes remain poor, and coupled with a weak health system, there are barriers hindering women’s participation in socio-economic life, greater empowerment and gender equity.

“We recognise that the involvement of the entire family in health seeking decisions and behaviours is critical to increasing demand and access to quality health services,” Ms Burns said.

“Our program supports the empowerment of women and men of reproductive age to understand maternal and child health needs. They also learn how to access services in a timely manner to prevent unnecessary death and disability due to a lack of skilled health care for mothers, newborns and children aged under five.”

Adolescent health

This is a new and exciting area of the program using the expertise of targeted partnerships and collaborations with national, regional and international agencies to respond to the changing demographics in Myanmar. As a country in pre-transition economic growth, the adolescent population has an important place in the future social and economic development.

“It’s a young country, with 28 per cent of the population between 10 - 24 years of age, but almost two-thirds of adolescents are living in rural areas where access to economic opportunity and social services is limited,” Ms Burns said.

“The Myanmar Government recognises the interdependence of positive health and education outcomes, and prioritises support to adolescents in the areas of sexual and reproductive health, and primary and secondary education.

“Burnet is planning a program of work within the monastic schooling system that addresses barriers to retention in school. These barriers affect sexual and reproductive health, enculturated gender inequities and gender-based violence. We will also be focusing on water supply and sanitation, including menstrual hygiene management,” she said.

Improving public health in a sustainable way

In a country undergoing rapid change, Burnet’s program aims to contribute to improving public health in a sustainable way. Myanmar Country Representative, Dr Phone Myint Win said this will be achieved through timely and relevant contribution to health systems strengthening and service delivery.

“We are supporting the in-service training of midwives and auxiliary midwives for improved quality of care across a range of areas for pregnant women and newborns. This involves maternal nutrition, emergency obstetric care, newborn care and skilled birth attendants,” he said.

The Myanmar program draws on Burnet’s global reputation in public health research and evaluation to promote knowledge generation for translation into improved practice in evidence-based programing.

Research and development projects

“Delivering services through five drop-in centres according to international best practice in harm reduction services for people who inject and use drugs is already underway,” Dr Phone said.

“The aim is to minimise harms to individuals and the community of drug use, and improve the quality of life and opportunity for economic and social participation for those people.”

Burnet’s expanded operational and primary research projects will contribute to, and inform, ongoing policy development and programing, ensuring the best use of resources for positive health outcomes.

Burnet’s projects in Myanmar

- Harm reduction
- Malaria
- Maternal, neonatal and child health
- Men who have sex with men
- Tuberculosis

Left: Role play with midwives during in-service training for emergency obstetric care.
In a world-first, Burnet Institute’s innovative Treatment and Prevention (TAP) Study directly targets those at greatest risk of HCV infection, people who inject drugs (PWID).

Head of Burnet’s Centre for Population Health, Professor Margaret Hellard believes hepatitis C treatment and prevention presents an unprecedented opportunity to eliminate HCV in Australia, and reduce harms and costs. The TAP Study is examining the feasibility of this approach.

“There is stigma and discrimination against people infected with hepatitis C, and the populations who are at risk of hepatitis C,” Professor Hellard said.

“But if treatment can be delivered effectively to high-risk transmitters such as people who inject drugs, significant reductions in future hepatitis C cases are possible.”

“A treatment and prevention approach gives us the opportunity to eliminate the virus by treating people infected with hepatitis C for their own direct health benefit who are missing out now, and at the same time stopping ongoing transmission of the virus.”

Conducted in collaboration with St Vincent’s Hospital and The Alfred hospital in Melbourne, TAP will assess the feasibility of community-based treatment, and whether treatment and prevention can reduce hepatitis C transmission and prevalence. TAP Study participants infected with hepatitis C will be treated with new medications, sofosbuvir and ledipasvir, made available through a multimillion-dollar grant by Gilead Sciences. Both drugs have been approved in the USA and are now licensed in Australia, but not yet subsidised under the Pharmaceutical Benefits Scheme. Trials indicate sofosbuvir and ledipasvir are highly effective with cure rates better than 95 per cent, can be taken for a shorter duration, and are well tolerated with minimal side effects. Because these new HCV medications require less specialist expertise than existing treatments, this presents an opportunity for new models of care and the prospect of treating PWID without them having to attend a hospital service.

“Attending a large hospital or health service has commonly been a barrier to care for people who inject drugs,” TAP Clinical Director, Dr Joseph Doyle said.

“But they are comfortable being treated in a community setting by clinicians, and other support services, they know and trust. TAP addresses this by providing nurses to treat and monitor participants in outreach vans and clinics located in their local communities.

“To eliminate hepatitis C in Australia, we have to work out how to use these new medications sensibly in community settings to reduce the disease transmission.”

The TAP Study explores the concept of ‘treatment and prevention’ (also known as ‘treatment as prevention’) where treatment not only results in cure for the individual, but also prevents the spread of HCV to others. Recent modelling suggests that treating PWID and their immediate contacts simultaneously (a ‘bring your friends’ strategy), versus treatment of an individual alone, will substantially reduce long-term HCV prevalence and treatment costs. The ‘bring your
Below: TAP Study participants will be treated with new medications, sofosbuvir and ledipasvir.

friends’ strategy reduces the risk of HCV reinfection post-treatment and impacts on HCV transmission through the network.

For the TAP Study there will be three groups of 140 participants each, including 40 primary participants in each group who must have HCV, and 100 secondary participants, partners and friends of primary participants who do not have to have HCV.

Recruitment for TAP started in April 2015 with participants drawn initially from the SuperMIX Study, a cohort of more than 700 PWID, many with chronic HCV infection, who have been participating in research with Burnet for many years. There will be further recruitment from Burnet’s PATH Study of prisoners with a history of injecting drug use, and PWID linked to a number of HCV outreach services across Melbourne linked to The Alfred and St Vincent’s hospitals.

Throughout the course of the study approximately 270 people will receive treatment for their hepatitis C. Study visits will include blood tests, clinical assessments by a research nurse including a mobile liver scan, and questionnaires about drug use, health and quality of life. No one who participates and is HCV-positive will miss out on treatment with new medications. The study will run for approximately two years, with the first results expected by the end of 2016.

“TAP has a pivotal role to play in this. We expect the results of this study will be used to support equitable access to these new medications in the future, and inform the roll-out of hepatitis C treatment globally,” Professor Hellard said.

HEPATITIS C

A blood-borne disease, hepatitis C is caused by a virus that infects the liver. In time, it can lead to cirrhosis, liver cancer or liver failure.

Hepatitis C affects an estimated 130–170 million people globally and causes the deaths of 350–500,000 people each year.

In high-income countries, people who inject drugs (PWID) are at greatest risk of HCV infection.

More than 230,000 Australians, most with a history of injecting drug use, live with chronic hepatitis C.

Only one-to-two percent of these people are treated annually.

TAP STUDY DESIGN

GROUP A
Participants given deferred treatment at the end of the study

GROUP B
Only the primary participants are treated immediately

GROUP C
Both primary participants and HCV-positive secondary participants will be treated immediately. This is the ‘bring your friends group’ and represents a novel approach to treatment.
Thanks to you ...

In recent months your gifts have enabled us to progress our work into new cancer treatments, better health for mothers and babies, and reducing harm from injecting drug use.

**Burnet’s new laboratory at St Mary’s Hospital in Kokopo, Papua New Guinea ...**

![Image of laboratory](image)

**NEW LABORATORY HELPS SAVE LIVES OF MUMS AND BABIES**

A vacant room at St Mary’s Hospital in Kokopo, Papua New Guinea has been transformed into a functional laboratory that will save lives. It is the first laboratory in the region that has the capability of undertaking a range of tests for infections that can claim the lives of vulnerable mothers and babies. Thank you for making that possible!

**Smart technology offers prospect of better TB diagnosis, thanks to you!**

The TB test that we are working on will look and operate in a very similar way to this VISITECT® CD4 test, which was also developed thanks to the generosity of people like you.

**“This simply wouldn’t have been possible without your help. Thank you!”**

*Professor Brendan Crabb AC, Director and CEO, Burnet Institute*
A GIFT IN YOUR WILL CAN CREATE A HEALTHIER WORLD

When I started training as a young infectious diseases physician in the early 1980s HIV was a new and frightening epidemic. My colleague Anne Mijch and I started the first HIV clinic at Fairfield Hospital in Melbourne. It was pretty hard in those days as we knew so little about how to treat people with HIV. I received a fellowship in San Francisco in the mid-1980s to learn as much as I could about HIV, before returning to Burnet Institute.

Since then, research efforts around the world have been translated into knowledge and treatment for HIV infection, and as a result many HIV-positive people can now expect to live an almost full life-span.

I have some patients that I have been looking after since the early days. Together we have witnessed a transformation.

A bequest to Burnet Institute in the mid-1990s enabled us to start our educational work in India, helping train doctors to treat HIV infection. Those programs have now expanded into Lao PDR, Myanmar, Indonesia and Fiji.

Another bequest contributed to the very earliest stages of development of the HIV VISITECT® CD4 point-of-care test that determines whether an HIV-positive patient needs to start life-saving antiretroviral treatment.

Every bequest can make a difference.

“I have seen the critical importance of bequests and gifts to Burnet Institute.”

Professor Suzanne Crowe AM
Associate Director & HIV research scientist, Burnet Institute
Side effects from HIV medication can be life-threatening.

New drugs are urgently needed to ensure that people living with HIV continue to lead healthy lives.

We urgently need your help to develop the next generation drugs against HIV.

Please give today at burnet.edu.au

“I have lived with HIV for 30 years. Managing the side effects of medication requires determination and a positive outlook on life.”
– Paul

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LAO PDR
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PAPUA NEW GUINEA
Port Moresby
3 Mile, School of Medicine, Medical Sciences Building, University of PNG
Kokopo
PO Box 1458, Kokopo Post Office, East New Britain

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You can make the difference of a lifetime, month by month.

Become a Burnet Health Champion TODAY!
Your monthly gift provides a reliable stream of support that could make the difference of a lifetime to vulnerable communities.

Yes, I would like to become a Burnet Health Champion and change lives.

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I would like to make a monthly gift of: $100 $50 $20 Other $ Other

Step 2: My payment
OR: Debit from my bank account

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Card No: 
Cardholder’s Signature:

Bank name: 
BSB: 
Account number: 

Step 3: My details
Name:
Phone:
Address:
Email:

Please send me information about including a gift to Burnet Institute in my Will.

Thank you for your support!

Please send this form in the enclosed Reply Paid envelope or mail to: Burnet Institute, GPO Box 2284, Melbourne, Victoria, 3001. An acknowledgment will be sent to you promptly. You may also call Jason Hean on (03) 8506 2370 to donate over the phone. Gifts over $2 are tax deductible in Australia. ABN 49 007 349 984

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Your monthly gift provides a reliable stream of support that could make the difference of a lifetime to vulnerable communities.

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I would like to make a monthly gift of:

$ 20
$ 50
$ 100
Other

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Debit from my bank account
Bank name:  
Branch:  
BSB:  
Account number:  
Signature:

OR:
Debit from my credit card:
VISA  
Mastercard  
Diners  
Amex  
Card No:  
Expiry Date:    /
Cardholder's Name:  
Cardholder's Signature:

Step 3: My details
Name:  
Phone:  
Address:  
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Professor Brendan Crabb AC
Director and CEO, Burnet Institute