The Global Burden of Malaria

Burnet’s Malaria Initiative

BURNET INSTITUTE: Promoting excellence in research and public health

CYCLONE NARGIS: Mobilising relief through civil society in Burma
This is my first column as the Director of the Burnet Institute and it is a great opportunity to tell you a little about myself and the exciting developments occurring at the Institute. My background is in laboratory research and I have spent much of the past 20 years addressing questions about why some microorganisms are pathogenic and so cause illness while others sometimes closely related species are relatively harmless. These days my own research team focuses on malaria and particularly on understanding something of the molecular basis for the devastating diseases the malaria parasite causes in hundreds of millions of infants and young children throughout the developing world each year. Like much of the research at the Burnet Institute on other serious human afflictions, our work aims to develop novel and affordable prevention and treatment strategies.

My philosophy in science is pretty simple: “Identify and find innovative ways to address the most important aspects of the most important health problems.” These are ambitious goals and making headway requires many things, including the assemblage and coordination of substantial intellectual and technical capacity. Big science is very rarely, if ever, a one-man-band and so the formation of larger collaborative teams amongst like-minded groups is often a must if significant discoveries are to be made.

At the time of writing this column it has been just over four months since I joined the Institute. Much has happened in that short time. Most importantly, we have finalised the agreement to finance and build our new premises right next to our current building on Burnet’s AMREP campus in Prahran. This $90 million Burnet Institute initiative provides us with enormous opportunities to grow our research and public health programs providing approximately 3,500 square metres of new space above and beyond that occupied by our two current Melbourne campuses. This arrangement also creates strong prospects for increased financial security and is a great credit to our board, AMREP partners and the many individuals who worked tirelessly to make this happen.

The other major development has been the substantial restructure of the Institute that was announced recently, which is detailed in this issue of IMPACT. These changes were a response to the recent growth of the institute, resulting in particular from the 2006 merger between Burnet and the Austin Research Institute. As we are now one of the largest independent research and public health Institutes in Australia, the restructure provides strategic leadership that I believe can take the Institute to new heights.

The clarity of purpose and the focus on excellence and high quality outcomes that this new structure provides lays a solid foundation for the Institute’s future. A future that uniquely marries laboratory research, population studies and public health intervention and capacity building programs to address major health problems in Australia and in our region. Our special emphasis on the specific health needs of disadvantaged communities in Australia and overseas will remain the central platform of the Burnet.

Professor Brendan Crabb, Director and Chief Executive Officer
Promoting excellence in research and public health

BY PROFESSOR BRENDAN CRABB, DIRECTOR AND CHIEF EXECUTIVE OFFICER

With the merger in 2006 of the Burnet and Austin Research Institutes and the rapid expansion of its international public health programs, the new Burnet Institute has suddenly emerged as one of the largest independent institutes of its type in Australia. With this growth also came an increase in the breadth of disciplines and expertise at the Institute and in the range of health problems it addresses. With these issues in mind, the Institute has been reorganised into a structure that is appropriate for the effective operation of an organisation of this scale and complexity. Uppermost in my thinking when restructuring the organisation was a focus on creating mechanisms that continue to promote excellence in all our activities, while at the same time emphasising our key strengths and primary mission.

One substantial change to the Institute in very recent days has been a major reorganisation of our scientific leadership structure, the cornerstone of which is the creation of four “Centres of Excellence”. The Centres – Virology, Immunology, Population Health and International Health – are all new, including to some degree the Centre for International Health, which, although pre-existing, now incorporates harm reduction into its infectious disease programs. The Centres represent Burnet’s key areas of research and public health strength, and are led by the Institute’s most experienced and highly credentialed scientists. Their role is primarily to provide additional strategic direction and mentoring to the individual laboratories and groups within each Centre, and to better identify and focus attention, resources and critical mass on addressing health issues of the greatest relevance.

While the Centres are not intended to be operational silos, two new mechanisms have been created to foster cross-institute activities and to promote attention to our central themes. The first is the formal recognition of crosscutting themes and the appointment of Burnet Principals to represent them. Not only will these experts become primary spokespeople for their respective themes, they will be responsible for the development of longer-term strategic planning and new initiatives, such as those depicted in red on the accompanying organisational chart. The second approach to ensuring cross-institute thinking is the creation of the Scientific Advisory Committee (SAC) which comprises Centre Heads and Principals together with the Director and Deputy Directors. This committee will meet regularly and consider major strategic issues on an Institute-wide basis.

While reform to the scientific leadership is achieved by the restructure described above, Burnet Institute administration and corporate services remain largely as they were. A key exception, however, has been the creation of the new position of Chief Operating Officer (COO) at the Institute. My view is that the scale and complexity of the Institute’s operations warranted such a position. I was very pleased to announce recently that Geoff Drenkhahn, previously Deputy Head of our Centre for International Health has been appointed to the role. Geoff will play a key role in the planning, implementation and oversight of all internal operational matters and will oversee much of the exciting new development of Burnet’s building next door on the Prahran Campus.

Together these changes begin a process of structural reform that will keep our new ‘super institute’ at the cutting edge of medical research and public health programs in this country.
It has been over 100 years since the discovery that malaria is caused by mosquito-borne infection with the microscopic *Plasmodium* parasite. Despite this knowledge and intensive global efforts to control and even eradicate the disease, malaria continues to be one of the world’s most important public health problems.

**The global burden of malaria**

As many as one billion people experience malaria infections each year and more than two million people die, mostly young children living in the poorest communities. Close to two and a half billion people live at constant risk of malaria, and recent re-evaluation of the global burden shows that one billion of these live in the Asia and Pacific regions. In addition to the direct health burden, there is widespread recognition of the profound social and economic impact the disease has in many affected countries, including our closest neighbour states. The Burnet Institute is building its capacity for research into malaria, both in the laboratory and in the field. The recent recruitment of three internationally recognised malaria experts and their associated teams makes the Burnet Institute a new and significant player on the world malaria scene. Their location within the new Centre for Population Health reinforces the Burnet’s commitment to concentrate its effort on the major health problems of the most vulnerable and marginalised populations, either in Australia or overseas.

Most severe cases of malaria are caused by a parasite species known as *Plasmodium falciparum*, but there is growing recognition of the importance of another species, *Plasmodium vivax*, to human health, particularly in the Asia and Pacific region. The life cycle of these parasites involves a two-week stage in the insect host and in fact most malaria control programs target the malaria-carrying Anopheles mosquito. Despite the effectiveness of this approach, the parasite is transmitted to the human host with astonishing regularity. Then, after spending some time in the liver the parasite moves to the blood stream, where it multiplies in red blood cells and reaches extraordinarily high numbers.

It is at this point in the infection that the symptoms of malaria occur. These commonly include the familiar fevers and body-shaking chills, but more life-threatening complications, such coma-inducing brain infection or severe anemia can occur. Unfortunately, resistance to mainstream anti-malarial drugs is now widespread and renders most cheap drugs ineffective for treatment. New intervention strategies, including a steady stream of new drugs and especially a malaria vaccine, are required for the sustainable reduction of the global burden of malaria.

*The Burnet Institute’s malaria initiative*

*The Malaria Research Group. Back row left to right: Professor Brendan Crabb, Sarah Charnaud, Dr Kerstin Leykauf, Tana Taechalertpaisarn, and Dr Mauro Azevedo. Front row: Dr Paul Gilson and Hayley Bulten.*
Our research focuses mainly on aspects of malaria that are relevant to the generation of blood-stage vaccines and new therapeutic approaches against *P. falciparum* and *P. vivax*. Genomic approaches such as microarray, proteomics and parasite transfection combine with our studies in the field to address major questions about the complex establishment of parasite immunity, the molecular basis for virulence and new, smarter control strategies.

An essential part of the parasite lifecycle is the invasion of red blood cells by the extracellular merozoite form of the parasite. Using a number of approaches, many proteins on the surface of *P. falciparum* merozoites have been identified over the last 30 years or so and several of these have become prominent blood-stage vaccine candidates. Making use of the complete genome sequence of *P. falciparum*, our studies have identified many new proteins residing on the surface and in invasion-associated organelles. With support from the Bill & Melinda Gates Foundation we are working with our colleagues at the Walter & Eliza Hall Institute and Ehime University in Japan, to measure the vaccine potential of these newly identified antigens.

Apart from being potential vaccine antigens, these proteins potentially play a role in the attachment to and invasion of red blood cells. Determining the biological role of these and other surface proteins remains an area of priority for our investigations, as such information is vital in choosing the best vaccine candidate. For this reason, we are very actively involved in developing new genetic technologies for use in the study of genes that are essential for parasite growth.

Understanding which antigens are the targets of protective immunity in the field is also crucial information in vaccine choice and overall strategy. Such antigens are usually polymorphic or ‘diverse’ because immunity selects for parasites that escape the human immune system. Scientists at Burnet are investigating the natural diversity and dynamics of antigens that are components of candidate vaccines. Despite antigenic diversity, people living in malaria endemic areas develop an anti-disease immunity. This is thought to occur with exposure to the range of antigenic variants in the parasite population. Using reagents generated from our population genomic surveys we are making protein arrays to measure human antibodies to hundreds of variants in parallel, to pinpoint key variants. Future research will widen this approach to also examine the diversity of the non-falciparum species, to better understand the impact of control interventions on parasite ecology.

Through these and other malaria field studies, Burnet has established strong links with the PNG Institute of Medical Research. Moreover, with malaria elimination now firmly on the agenda for the Pacific, with programs in the Solomon Islands and Vanuatu already underway, field-linked research of the type being undertaken by Burnet has become a major global research priority. The group is particularly interested in the interplay between co-transmitted falciparum and non-falciparum malaria species, most significantly vivax malaria. Understanding this complex ecology and its effect upon the acquisition of immunity and the persistence of transmission will become a key factor to malaria control outside Africa.

For more information on malaria research at Burnet, contact Dr. Paul Gilson on (03) 8506 2346 or email gilson@burnet.edu.au.
Our New Building Underway

Construction of the new Burnet Institute building is underway. This building will house our new laboratories and is an extension to the existing Alfred hospital building on the corner of Punt and Commercial Roads. The fourth floor slab was poured in early August, the shell is planned for completion in May 2009 and final completion of the building is on track for March 2010.

Being an extension to the existing Alfred Centre Day Procedure Unit has not been without its benefits. We are fortunate in not having to consider maintaining hospital function while the extension is added, and we were also able to commence building immediately. The complex construction program will keep Burnet staff who are directly involved very busy for the next 18 months; adding design details to laboratories and offices, and planning the relocation of staff and equipment from the Austin campus and the Burnet Tower.

Once complete, Burnet will occupy the top floor, level seven: an area large enough to house more than 100 research staff, within a range of standard and specialised medical research laboratories. Fellow occupants of the building will be The Alfred hospital, Monash and LaTrobe Universities and Baker IDI Heart and Diabetes Institute.

2008 Fenner Lecture

On 27 May a capacity crowd gathered in the AMREP Seminar Room to hear the 2008 Fenner Lecture delivered by Burnet’s Centre for International Health’s Associate Professor Mike Toole. The title of his talk was ‘HIV prevention in low-income countries: thinking outside the boxes’.

The annual Fenner Lecture is presented by, and pays tribute to, a Burnet Institute staff member who has made a significant contribution to the Institute’s vision and mission in the areas of medical research and public health.

The Fenner Lecture honours Professor Frank Fenner AC, CMG, MBE, one of Australia’s greatest scientists, who has made outstanding contributions to international virology and public health.

You can view Associate Professor Toole’s lecture online at http://www.burnet.edu.au/home/general/newsroom/newsroom/fenner, or you can telephone (03) 9282 2111 for further information.

BURMA APPEAL

Thank you to all those who so generously supported our recent fundraising Appeal for the people of Myanmar (Burma) in the wake of the devastation of Cyclone Nargis. More than $26,000 was raised and the money was sent directly to Burnet’s office in Yangon and distributed through our local partner organisations to vulnerable populations in the affected areas. More information about the effects of the cyclone and Burnet’s response is in the article on the next page.

Equipment Appeal Thanks

We would like to thank those who supported our Equipment Appeal for their generous contributions. More than $119,000 was raised, allowing us to purchase a Beckman ultracentrifuge and BioPlex system. Our cutting edge research demands state-of-the-art equipment to help our researchers advance their findings and speed the delivery of new health solutions.

The Beckman ultracentrifuge includes a world-first vacuum-encased induction drive and an environmentally (CFC-free) thermo electric refrigeration system.

The BioPlex system enables simultaneous analysis of up to 100 different biomolecules (proteins, peptides or nucleic acids), allowing researchers to dramatically increase the amount of useful information from volume-limited samples and decipher complex interrelationships among biomolecules.
The Burnet Institute has worked in Myanmar since 1995. Staffed with 26 Burmese nationals and three expatriates, it manages two major projects aimed at building the capacity of local organisations to respond to HIV.

While Burnet is not a relief agency, we have expertise and experience in emergency responses. In the wake of the cyclone Burnet established that the best way to support the relief effort was to provide technical and organisational support to local partners and international NGOs through the establishment of a Local Resource Centre.

Additionally, the Burnet Institute partnered with Marie Stopes International and Antares Foundation Australia to provide psychosocial training and material support for frontline staff providing emergency sexual and reproductive health services to women.

For those of you who gave generously to our Burma Appeal, here is an update on what your donation has been able to achieve through our two projects.

Local Resource Centre
The Local Resource Centre (LRC) opened in Yangon on 15 May. To date, 263 local organisations have received assistance from the LRC. Of these, 96 local NGOs and 738 individuals have participated in training courses including: planning for relief responses, organisational development and financial management.

This training and support has resulted in 72,880 people receiving assistance. An additional 300,000 intended beneficiaries have been targeted in proposals submitted to the LRC and other donors.

As the relief effort shifts to longer term recovery, staff at the LRC are receiving requests from local organisations for training and support to restore local sources of income and re-establish people’s livelihoods.

Integrated Psychosocial Response in Sexual and Reproductive Health Services
The Burnet Institute, Marie Stopes International and Antares Foundation Australia are providing training to local partners and staff in psychosocial care; HIV prevention and gender-based violence in emergency settings.

These three core topics are being integrated into ongoing sexual and reproductive health education and service provision projects in the affected areas.

Burnet and Marie Stopes are also distributing essential items for women and their families including household hygiene kits, dignity kits for women, and safe birthing kits.

For more information about Burnet’s work in Myanmar (Burma) please contact Dino Asprolopous on (03) 9282 2238.
The China-Australia Health and HIV/AIDS Facility (CAHHF)

The China-Australia Health and HIV/AIDS Facility (CAHHF) is the latest Australian government health assistance initiative in China. CAHHF celebrated its first birthday in August and is starting to not only walk but talk as well. The Facility provides flexible funding to support health systems development, as well as better responses to emerging infections and to HIV infection in China.

The level of interest in CAHHF’s first call for proposals earlier this year was far greater than expected – we received 261 applications. Thirty of these were approved by the Program Management Committee of the China-Australia Integrated Health and HIV/AIDS Program and will be developed further into full activities. Many of these are exciting and strategic areas of work. Some examples include support to: China’s Health 2020 long-term strategy, improved health care standards for urban primary health care centres, investigation of new infections, and strategic planning for HIV prevention and care with national government planners.

The Facility Management Team in Beijing has been busy working with a variety of health advisors to help revise and improve Activity Designs prior to implementation. The first fully approved activity was launched in early July 2008. You can find out more about CAHHF at www.cahhf.org.

Burnet manages this facility for the Australian government, under the guidance of AusAID in Beijing and the China Ministry of Health (who both supply Senior Health Advisors to CAHHF), as well as the Australian Department of Health and Ageing and the China Ministry of Commerce. Burnet works with the health consultancy HLSP, who support the office and Facility management team in Beijing.

TALKING HEADS

Professor Steve Gerondakis, Head, Intracellular Signaling and Gene Expression Laboratory, Centre for Immunology

We would like to welcome Professor Steve Gerondakis and his laboratory to the Burnet Institute, here he explains the nature of his research.

The development and function of different types of cells in the body is determined by unique patterns of gene expression that are controlled by extra-cellular signals. My lab’s attention has focused on the biochemical pathways in cells of the immune system that serve as the conduits for transmitting information from outside the cell into the nucleus, where gene expression occurs. The challenge for researchers is to understand how a bewildering diversity of external signals that regulate specific functions within the immune system via specific patterns of gene expression is achieved using a limited number of intracellular signaling pathways.

We have been studying two such intracellular pathways in immune system cells, the so-called NF-κB and MAP kinase pathways. Both these signaling pathways regulate basic cellular processes such as cell division, cell survival, differentiation and the production of immune regulatory molecules. In keeping with their importance in the regulation of these fundamental functions, the impaired control of these pathways has been implicated in a wide
Bangkok | BRAD OTTO

The Burnet Institute’s newest overseas office has recently been opened in Bangkok, Thailand. The office will function as a representative office for the Asia region, focusing primarily on East and Southeast Asia. Brad Otto, who established Burnet’s Indonesia program in 1997, is Burnet’s new Regional Representative for Asia.

Burnet currently has a strong presence in Asia, with country program offices in Myanmar (Burma), China (Tibet), Lao PDR and Indonesia. With the addition of this regional office in Bangkok, we are further demonstrating Burnet’s commitment to working in Asia. We expect that the regional office will provide opportunities to engage more closely with regional and in-country partners in Bangkok and Asia. Such partner organisations include UNAIDS, UNICEF and other UN regional offices; technical agencies such as Family Health International and the International HIV/AIDS Alliance; regional advocacy and activist organisations like the Asia Pacific Network of Positive People (APN+); and regional donor offices such as AusAID and USAID. Through these relationships, we hope to influence health and HIV policies and strategies throughout the region.

Having an established regional office is already leading to increased visibility and opportunities for Burnet. Following on from Cyclone Nargis which devastated the Irrawaddy delta region and Yangon city in Myanmar, Burnet participated in the emergency and humanitarian relief coordination meetings in Bangkok organised by the World Health Organization. We were also able to channel an anonymous donation of US$200,000 to our Burnet office in Yangon to establish an Integrated Psychosocial Support and Reproductive Health Project.

Brad meets regularly with representatives of various donor and technical agencies in Bangkok. He is now Burnet’s representative with the AIDS Society of Asia and the Pacific, and also sits on various formal and informal working groups related to HIV and other health issues significant to the region.

When I finished my Honours degree in microbiology and epidemiology, I planned to continue my studies with a PhD in the same field. However, for the few months between the end of my Honours and the beginning of my PhD, I was offered a job as a research assistant at the Burnet Institute’s Centre for Epidemiology and Population Health Research (CEPHR), now known under the new structure as the Centre for Population Health. After working on a range of interesting projects, such as a survey of general practitioners’ knowledge of Chlamydia; the teaspoon study; and HIV surveillance for the Victorian State Government, I knew that epidemiology was what I wanted to do. So I stayed on as a research assistant with CEPHR for two years, before beginning my PhD.

I probably have the most interesting PhD title ever; ‘Sex, drugs and rock’n’roll’. The study involves recruiting young people at a music festival and surveying them about sexual health and drug use. I’ve also used this group in a trial of the use of text messages (SMS) and email to reduce STI risk and awareness of STIs. As well as my PhD, I also work part time for the Centre for Population Health on the sentinel surveillance team where I get to have nerdy fun working with data!

Burnet is a great place to work because of the variety of projects available. Within CEPHR I have had the opportunity to be involved in a number of projects other than my own, such as hepatitis C surveillance; the Asia Pacific Neuro-AIDS Consortium Study; The Soccer and Noodles Project; and the Sex and Sport Project.

Even though I like my work, I like to spend as much time away from it as possible, especially travelling overseas. Some recent trips include Botswana, Croatia, Mexico, Romania and Thailand. I also enjoy netball, kickboxing and aerobics, and have just started up a lunchtime fitness club for our Centre!
working partnerships

→ Queensland and Victoria join resources to combat malaria

Burnet’s International Health Research Group’s Laboratory Sciences section, headed by Dr. Alyssa Barry, is working towards a better understanding of natural immunity through collaboration with Dr. Denise Doolan at the Queensland Institute of Medical Research (QIMR).

Malaria remains a major public health problem in tropical and subtropical regions of the world. Children bear the majority of the disease burden, but by early adolescence they rarely show clinical symptoms. This naturally acquired immunity is thought to occur with the gradual acquisition of antibodies to the many variant surface proteins or ‘strains’ in the parasite population.

Research in this area has previously been limited by a lack of high throughput tools to rapidly isolate and characterise parasite variant proteins and to screen the exposed human population for variant-specific antibodies.

The two scientists met in 2005 in the USA where they were both working at the time. Dr Barry, a molecular epidemiologist, had developed a framework to rapidly isolate variant surface proteins from natural populations, while Dr Doolan, an immunologist, had developed protein microarrays to screen human serum for antibodies to parasite proteins.

Together, they are combining their tools and expertise to systematically define the steps involved in the development of natural immunity. Their aim is to identify a small number of variant surface proteins of the many hundreds that are possible, that could be further developed as components of a malaria vaccine. Alyssa and Denise are also working with Dr Phil Felgner at the University of California Irvine.

Burnet and AusAID sharing a commitment to training and education

Australian NGOs, such as Burnet, have opportunities to engage with AusAID in a number of ways. For instance, AusAID will hold consultations with a range of stakeholders, including NGOs, on sectoral policy development or regional and country strategic planning. These consultative processes result in improved policies and strategic plans as they draw on our collective knowledge and experience. AusAID and Burnet also share a strong interest in the capacity of health and development practitioners to deliver quality health services in poor countries. This mutual interest is evident by two of our recent collaborations.

Enhancing Public Health Education in Bali

The Australian Leadership Awards Fellowships is an AusAID program that aims to develop leadership, build partnerships and create links within the Asia and Pacific region. With funding from this program, Burnet has been assisting Udayana University in Denpasar, Bali to develop a Master of Public Health program for the Eastern Indonesian region. Staff from Udayana study Burnet’s public health courses in Melbourne and then, with Burnet’s assistance, develop the curriculum for their own Masters program that will commence in 2009.

HIV and AIDS Training for AusAID Staff

Burnet has been working with AusAID’s Health and HIV/AIDS Thematic Group to provide HIV training for AusAID staff in Australia and overseas. To date, 335 AusAID staff from 17 countries have received training. This training has covered a range of topics from basic facts through to current issues and emerging trends. The training aimed to help AusAID staff programmatically, by increasing the understanding of integrating HIV responses into all aid and development activities, and personally by providing staff with HIV prevention and awareness education. Participants particularly appreciated hearing the personal stories of HIV positive speakers; learning about the realities of living with HIV and the destructive impact that stigma and discrimination can have on lives.

The Burnet Institute would like to thank AusAID for its generous support for our health and development program and for the many opportunities to collaborate in the area of public health education and training.

EDUCATION 2008

The Centre for International Health coordinates the Graduate Diploma of International Health, the Master of Public Health – International Health stream and the Master of International Health via Monash University. Courses and workshops run by the Centre for International Health cover topics including primary health care, HIV strategic planning, behaviour change, health information systems, and refugee health. The CII also coordinates two subjects on harm reduction and the global impacts of drug use as part of the University of Melbourne’s postgraduate public health studies.

For detailed information on Burnet’s accredited University studies, short courses and workshops visit www.burnet.edu.au and follow the links to the Education pages.

The Burnet Institute also has a number of PhD and Honours students from a variety of universities, both locally and internationally. Currently there are 37 PhD students, and nine Honours students under the supervision of our head researchers. In addition, Burnet also hosts Bachelor of Science undergraduate students as part of their coursework.
Romp around Brisbane and Melbourne to raise funds for the Burnet Institute

The ‘Go for your life’ Melbourne City Romp is back on 19 October. Following the huge success of last year’s event an inaugural Brisbane City Romp will take place on Sunday 21 September 2008.

The four hour City Romp is a team-based challenge that is part treasure hunt, part ‘Amazing Race’ and part puzzle. Teams of between two and six people use a map, a mobile phone and a clue-sheet to find checkpoint locations around the city, winning points for successfully completing checkpoint challenges.

The checkpoint are at iconic city locations as well as lesser known historically and culturally significant places. Teams must stay together at all times, can only walk or catch public transport and no running is allowed. It’s an event that appeals to people of all ages and ability. It’s not only great fun, it’s also a major fundraiser for Burnet, raising money for our vital research into infectious diseases and cancer.

Rompers at each event go into the draw to win $100,000 of prizes including travel packages, accommodation, Myer vouchers, Keens shoes valued at $220 each and more. For more information or to register your team go to www.cityromp.com. Entries are selling fast and a capacity field is expected in both Brisbane and Melbourne.

11th Annual Business Breakfast

Close to 200 people braved a very chilly morning to attend the 11th Annual Business Breakfast at Zinc, Federation Square, to hear acclaimed writer, scientist and explorer, Professor Tim Flannery speak on ‘Climate Change: an update to July 2008’.

He commented that neither abolishing every oil burning engine nor stopping every coal-powered enterprise would be enough to reverse the levels of greenhouse gases in the atmosphere, now more than sufficient to cause catastrophic climate change.

To reduce greenhouse gas emissions Professor Flannery encouraged the audience to switch to green energy suppliers and give up high energy consuming vehicles like SUV’s in preference for hybrid cars. He called for leadership to promote investment in solar energy and wind power, commenting that ultimately we must look to government to enforce the ideas generated by positive leadership in our communities.

Thomas Heywood organ concert

The second annual Thomas Heywood organ concert, in support of the Burnet Institute, was held on Sunday 25 May at the Toorak Uniting Church. The Friends of Burnet did a wonderful job of organising the day’s activities and the recital was thoroughly enjoyed by all. The funds raised on the day go towards Burnet’s diverse public health programs both in Australia and in developing countries. Mr Heywood, a child prodigy at five, is the first Australian musician to make a living from organ concerts. Since 1994 he has toured Australia regularly, as well as Europe, Canada and the United States, where his performances have become sell-outs.

For more information about the Friends of Burnet, or details about next year’s concert please contact Ian Haigh on (03) 9282 2299.
Sunday 19 October 2008

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