


*annual report*



*discovery for a healthy tomorrow*

2007





The Menzies School of Health Research was established in 1985 as a body corporate of the Northern Territory (NT) Government under the *Menzies School of Health Research Act 1985 (The Menzies Act)*. This Act was amended in 2004 to formalise the relationship with Charles Darwin University (CDU). Menzies is now a school within CDU's Institute of Advanced Studies, but remains controlled by its own Board.

In the spirit of respect, the Menzies School of Health Research acknowledges the people and elders of the Aboriginal and Torres Strait Islander Nations, who are the Traditional Owners of the land and seas of Australia.

For the purposes of this document, 'Indigenous' refers to Australia's Aboriginal and Torres Strait Islander peoples.

Aboriginal and Torres Strait Islander peoples please be advised that this publication may contain images of deceased persons.



# professor alan walker - a tribute



In April 2007 a great friend and supporter of Menzies, Alan Walker, died following several months of illness. Alan's death marked the end of a 40 year era that was associated with dramatic improvement in child health in the NT. Whenever the media highlighted the poor health of Indigenous children, Alan would be quick to remind us how much things had improved.

Alan came to the Territory in 1967 to take up a position as our first paediatrician. When he arrived, for every 100 Aboriginal babies born in the NT, around 14 would die. For every 100 Aboriginal children admitted to hospital with diarrhoea, 10 would die. Today, the infant mortality rate has been reduced by 90% and almost no child admitted to the Alan Walker Ward at Royal Darwin Hospital will die. Alan (and the team that he inspired) can take enormous credit for this achievement.

We all admired Alan's commitment to health care and medical education in the NT. He said it was easy – "I've got the best job in the world". Alan was Head of the Department of Paediatrics until 1996. During this time he established the Post Graduate Medical Society. He was mentor to many paediatricians (including our current Director), physicians, general practitioners, nurses, and Aboriginal Health Workers. In 1996, he became the first Clinical Dean at the newly established Northern Territory Clinical School of Flinders University. Alan was also a leader within the Royal Australian College of Physicians (RACP). He organised their first national meeting addressing Indigenous health. He remained a strong advocate for clinicians working in remote locations and overseas trained doctors. In 1998, he received the RACP's highest award – The John Sands Medal. When he finally retired, it was not for long. He frequently

interrupted his other pursuits to work as a paediatrician and hospital administrator in Darwin, Alice Springs, Katherine and Nhulunbuy.

Alan published highly influential research papers on many illnesses affecting Indigenous children. His studies described diarrhoea, malnutrition, hookworm complicated by severe anaemia, low birth weight, rheumatic heart disease, and epidemics of post-streptococcal glomerulonephritis. His overview of common health problems affecting Aboriginal children is still recommended reading. He supported many clinicians interested in research and his influence on the Menzies School of Health Research was substantial. Alan was still contributing as a member of our Ethics Committee until 2007.

Alan also did outreach paediatric clinics in Aboriginal communities. He had colleagues throughout the Territory and he continued going to the Tiwi Islands every couple of months. Only illness could stop him. While he provided an excellent clinical service, his priority was getting to know the families. He hoped that this might minimise the distress associated with any subsequent admission to hospital. It was remarkable that he could talk with three generations of Tiwi women (child, mother, and grandmother) about their childhood illnesses. He had looked after them all. Not surprisingly, the tribute and singing of his Tiwi friends at his funeral was deeply moving.

Alan was a committed family man. For all his achievements, persuading Anne to marry him was his greatest. He acknowledged that much less would have been possible without her love and support. He was intensely proud of his children Andrew and Mandy. He loved spending time with them and with his grandchildren Dan, Melanie, Joshua, Campbell and Henry. Alan's love of swimming, surfing and rugby were well known. Stories of Alan continually challenging his grandchildren to a swimming race will not be forgotten.

Alan was aware that everywhere in life we face trade-offs between benefit and harm. Nothing is black and white. All families face difficulties. Even in trying times, we can often identify positive aspects of our lives. Alan loved poetry. His efforts to educate his colleagues were not limited to clinical medicine. In his last Christmas Quiz for the Department of Paediatrics, Alan recited from one of his favourite poems where the author was asking a fairground worker about his job:

Said he "the job's the very spit of what it always were,  
It's bread and bacon mostly when the dog don't catch a hare,  
But looking at it broad, and while it ain't no merchant kings,  
What's lost upon the roundabouts, we pulls up on the swings."

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## who we are and what we do...

Through scientific excellence, education and research the team at Menzies is discovering ways to reduce the impact of disease and improve the health and well-being of people living in Australia and beyond.

As the nation's leader in Indigenous and tropical health research, our discoveries are being used to better prevent, treat and diagnose disease. Our researchers are also making a difference by showing how the social and physical environments in which we live and in which health care is delivered can be improved.

The problems associated with poor health and disease don't stop at international borders – that is why Menzies researchers work with governments and communities in our region and across the globe to offer their expertise and contribute our unique perspective gained from over twenty years of ground-breaking research.

At Menzies we are passionate about using our unique knowledge and solutions to discover a healthy tomorrow for all.

Working within our seven Divisions our expertise includes:

- **Child Health** – we are working to combat ear, lung and skin infections that affect the healthy development of Indigenous children and are focusing on the links between health and education from pre-birth to leaving school.
- **Education and Training** – we are training the researchers, clinicians and policy makers of the future to help to improve the quality of life of disadvantaged people across our region.
- **Healing and Resilience** – our researchers are helping to prevent, diagnose and treat mental illness and substance misuse in Indigenous people.
- **International Health** – we are world leaders in research into major health problems in our region including rheumatic heart disease, malaria and tuberculosis.
- **Preventable Chronic Disease** – we are working to discover the best ways to diagnose, treat and prevent chronic diseases such as diabetes, heart and kidney disease.
- **Services, Systems and Society** – our researchers are finding out what we are doing right and what can be changed so we can improve the health care system and the social and physical environments in which people live and in which health care is delivered.
- **Tropical and Emerging Infectious Diseases** – the Menzies team are unearthing new health threats so we can improve treatments, prevent the spread of disease and help develop vaccines.





## *where and how we work*

With its main base on the Royal Darwin Hospital campus in Darwin, Northern Territory, Menzies employs around 200 staff – a high proportion of whom are Indigenous. We also operate a smaller unit in Alice Springs and have a joint facility with the Indonesian Ministry of Health in Timika, Indonesia.

At Menzies we have world-class laboratory facilities where we conduct ground-breaking research including analysis of snake venom, soil samples for melioidosis, scabies mite drug resistance, malaria and deadly bacteria.

We work in more than 40 Indigenous communities across Australia and our work touches the lives of many. Our researchers are discovering better ways to treat common problems and we are working with local people to help them improve the health of their communities.

The challenges we face include poverty, poor environmental conditions, infectious diseases, lifestyle related disease and inequality of access to health services.

Menzies employs some of the nation's best researchers and we are recognised as a regional leader in education and research.

We are using our unique knowledge and know-how to discover solutions and help disadvantaged people around the world.

# menzies strategic plan

The development and implementation of a new Menzies Strategic Plan was a major highlight of 2007.

The plan sets out the organisational structure and priorities for the next five years. At the core of the plan is Menzies' commitment to research, education and training, and transfer of research outcomes into policy and practice.

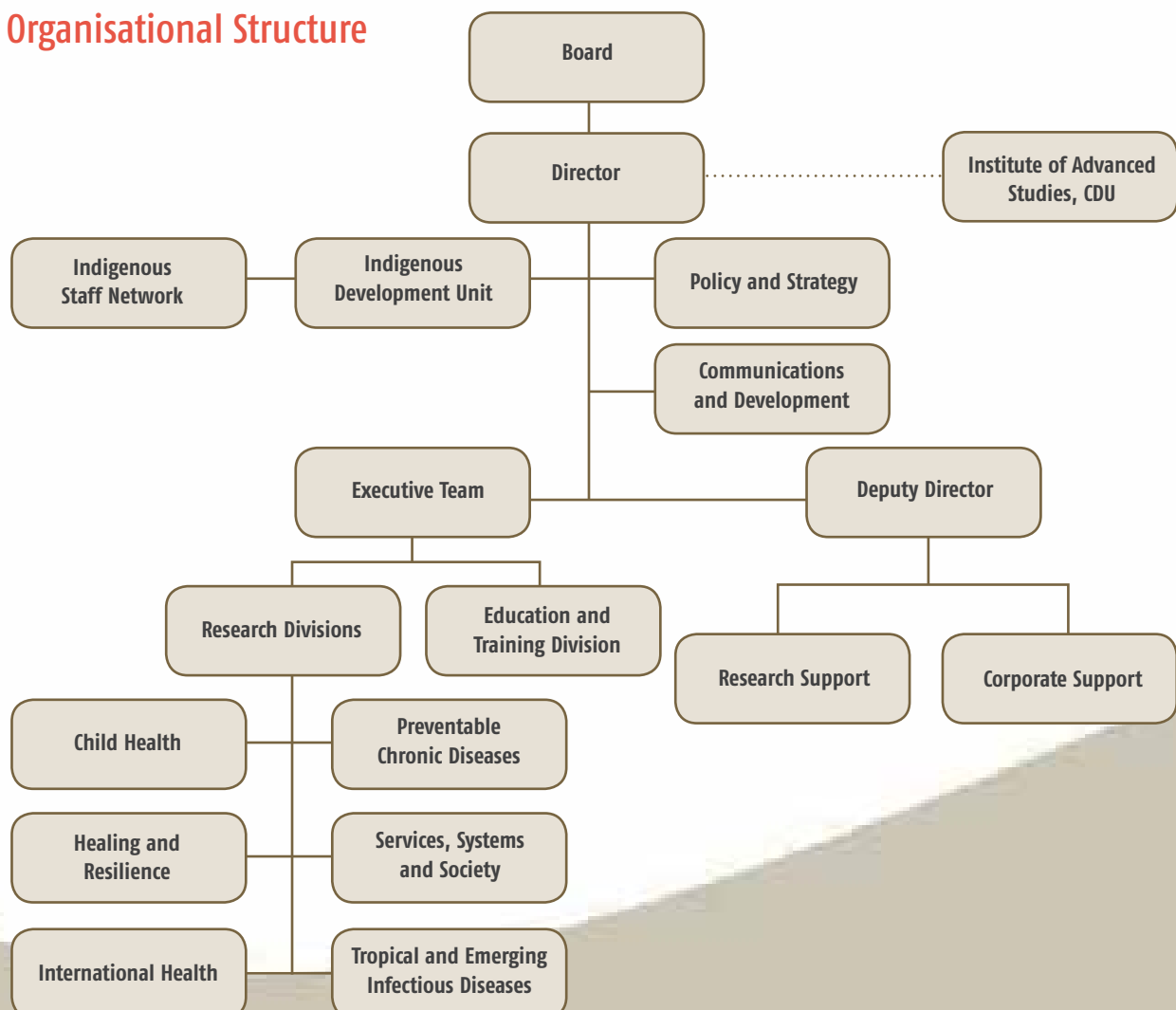
The Strategic Plan not only sets out our research and education priorities but also addresses the urgent need to improve recruitment, development and retention of Indigenous staff and research leaders of the future.

The Plan outlines our strong commitment to working hand in hand with Indigenous communities through the establishment of community based 'Research Hubs' and the development of the Menzies Indigenous Development Unit.

Education and training will continue to be central to everything we do and the plan outlines our commitment to not only broadening the range and scope of the courses on offer, but also increasing the numbers of students enrolled at all levels, particularly Indigenous students.

There are many challenges and opportunities over the next five years and the Menzies Strategic Plan is a blueprint to enable the Board and staff of Menzies to achieve our vision and goals for research, education and Indigenous development and capacity building.

## Organisational Structure





## vision

To improve health outcomes particularly for Aboriginal and Torres Strait Islander communities and disadvantaged populations through excellence and leadership in research and training.

## values

### Responsiveness

To be responsive to health needs and shared priorities, particularly of Indigenous Australians, disadvantaged populations and others living in central and northern Australia.

### Building research capacity

To foster and develop researchers of the future, with a particular emphasis on Indigenous researchers.

### Collaboration

To work in partnership with communities, other researchers, policy-makers, and those who deliver health and other services.

### Quality

To be excellent in everything we do.

### Integrity

To act with honesty and according to our values.

### Innovation

To be willing to take risks, embrace new approaches, and pursue ground-breaking research.

### Relevance

To concentrate on solving problems that matter, whether they be big or small.

### Communication

To undertake an ongoing dialogue with partners and stakeholders during the research process, from conception to completion.

## goals

To meet the challenges of today and tomorrow, Menzies has set out four strategic goals. These are:

### Goal 1

Excellence in health research.

### Goal 2

Excellence in health education and training.

### Goal 3

Strengthened capacity of researchers, particularly Indigenous researchers, and improved engagement of Indigenous communities across the research process.

### Goal 4

Improved income generation and services to support research and education activities.

# 2007 - the year at a glance

## Research and Education Highlights

- Senior Menzies researchers were awarded a \$6.1 million Commonwealth Government contract to undertake the Support, Collection, Analysis and Reporting Function (SCARF) of the Healthy for Life program.
- Played a leading roll in developing a national strategy for rheumatic heart disease control, the implementation of which is planned for 2008 as one of the policies for the new Australian government.
- Planning commenced for the establishment of a National Centre for Developmental Health and Education in conjunction with CDU's School for Social Policy Research.
- Commencement of the National Cancer Outcomes for Indigenous Australians study.
- The 'PneuMum' study established that vaccination of mothers has lead to increased antibody transfer to their babies. The study will continue to monitor whether this also leads to increased antibody transfer in breast milk and ultimately whether it leads to prevention of ear disease.
- The 'BLOOM' study published findings that a very high microbial density in the nasopharynx is established in Indigenous infants within weeks of birth. Indigenous children have a much higher microbial density in the nasopharynx than non-Indigenous children with the same ear diagnosis – this may explain persistent disease in Indigenous children.
- Commencement of the 'Sister Study' which will help to increase understanding of vulvar cancer and inform whether vaccines may be effective in preventing vulvar cancer in Aboriginal communities.
- Invitation from AusAID to jointly lead a major women and children's health specialist knowledge hub to develop, synthesise and strengthen the evidence base of strategies to improve women and children's health in our region.
- Publication of results from two large clinical trials in over 1000 patients showing a new artemisinin combination therapy, dihydroartemisinin-piperaquine, to be the most effective treatment for drug resistant malaria in Papua.
- In collaboration with the Graduate School of Health Practice, the education and training division developed a new professional doctorate program to commence in 2009.

## People Highlights

- Menzies welcomed many new Indigenous staff during 2007 and the Indigenous workforce increased by over 60 per cent.
- Dr Geoff Isbister was listed as one of Australia's Top Young Scientists in Cosmos magazine
- Professor Nick Anstey and Dr Yin Paradies received Northern Territory Research and Innovation Awards, and Dr Paradies was named NAIDOC Scholar of the Year.
- Dr Nelson Martins graduated with his PhD from Menzies and has since become the Minister of Health for Timor Leste
- Professor Jonathan Carapetis was named NT Australian of the Year for 2008 (Professor Bart Currie was also a finalist), and a finalist for the 2008 Australian of the Year Awards
- Professor Anne Chang and Associate Professor Phil Giffard were recruited as Heads of the Child Health Division and of Laboratory Science, respectively.
- Lee-Anne Mick-Ramsamy and Fay Acklin were recruited as Indigenous lecturers in the Education and Training Division.

## Corporate Highlights

- Menzies' 2007-2011 Strategic Plan was launched.
- Total research income for 2007 was \$21.5 million – an increase of \$5 million from the previous year.
- \$10.5 million was secured from Commonwealth and Northern Territory Governments to almost double the capacity of Menzies' headquarters in Darwin.
- The Menzies Indigenous Development Unit was established to foster the development, training and retention of Indigenous staff and students at Menzies.
- After a gap of several years, the Menzies Oration was reinstated, with Aboriginal and Torres Strait Islander Social Justice Commissioner Mr Tom Calma speaking on the subject of 'What Does A Human Rights Approach Offer In Improving The Health Of Indigenous Australians?'

## a message from the chair

There are certain periods in an organisation's life that are particularly significant and I believe 2007 was such a year for the Menzies School of Health Research.

Menzies finalised its 2007 – 2011 Strategic Plan early in the year providing a blue print enabling the School to achieve its strategic objectives for research, health education and research training. In doing so, the Strategic Plan will ensure that Menzies remains the nation's leader in Indigenous health research and a significant contributor to health education and training, as well as making valuable contributions to international health research.

Throughout the year the Board has been delighted with the work and achievements of the Director, Professor Jonathan Carapetis, and the School as a whole. The year saw Menzies secure funds to undertake building extensions at its headquarters located at Royal Darwin Hospital. Grants of \$10.5 million were secured from the Australian and Northern Territory Governments. The extensions, expected to begin in 2008, will enable Menzies to significantly expand its capacity and indicates the School's desire to increase its contribution to improving health outcomes for Indigenous Australians and other disadvantaged populations.

One of the School's strengths is the ability to maintain high quality research and education activities in an ever changing political landscape and 2007 was no different with the roll-out of the Federal Government's 'NT Intervention', a change in Federal Government and a new Chief Minister appointed to the Northern Territory. The coming year will be a busy one for the School as it works with these new political appointees and continues its health research activities to ultimately improve health outcomes for Indigenous Australians.

As noted elsewhere in this report, there has been much to celebrate through research successes and staff personal achievements. Certainly one of the highlights was our Director being nominated as a finalist for the 2008 Australian of the Year Awards. Jonathan's nomination was due recognition of his work as Director at Menzies as well as his work as a paediatric infectious disease specialist and establishing Australia's first rheumatic heart disease control program.

There were a number of changes to the Board membership in 2007. We welcomed Ms Roslynn Bracher, Dr David Ashbridge, Mr Ken Davies and Professor David Celermajer and bid farewell to Ms Margaret Banks, Professor Bruce Armstrong and the outgoing staff representative to the Board, Ms Melita McKinnon. On behalf of the Board and School, I thank both Margaret and Bruce for their contributions and I wish them well in their future endeavours. I would also like to take this opportunity, on behalf of the Board and School, in congratulating Roslynn on her Order of Australia award.



It was also pleasing to see the formation of the Communications and Development Unit which has begun diversifying the School's revenue base as well as expanding its profile. One of the major events coordinated by the Unit was the Menzies Oration. It was wonderful to see the return of the Oration delivered by Mr Tom Calma, the Aboriginal and Torres Strait Islander Social Justice Commissioner. His topic 'What Does A Human Rights Approach Offer In Improving The Health of Indigenous Australians?' was a thought provoking session and we look forward to the Menzies Oration returning as an annual event.

At the end of the year, the term of His Honour Mr Ted Egan, Northern Territory Administrator, ended. Mr Egan and his partner Nerys Evans have been long time supporters of the School and I wish them well in their future endeavours. We also welcomed the new Administrator, His Honour Tom Pauling, as our new patron.

Finally, I offer my congratulations to the staff and students of Menzies for their continued commitment and outstanding contributions to the work and life of the School, and continued thanks to the numerous communities that we work in partnership with across Australia and in our region. Menzies success is very much reliant on your continued support and contribution. With the Board, I look forward to the exciting year ahead.

A handwritten signature in black ink that reads "S. Maddocks". The signature is fluid and cursive, with a long horizontal stroke at the end.

Professor Simon Maddocks, **Chair**

## a message from the director



It gives me great pleasure to present to you the 2007 Annual Report – my second as Menzies Director.

This was a year of challenges, great achievements, growth and results. One of the most significant events of the year was the introduction of our new strategic plan, with the associated restructuring of the organisation. We now have six research divisions, an Education and Training Division, and an excellent team in Corporate Services to support this structure. We also instituted operational plans which will allow us to track progress against our objectives. I have been delighted at how the staff have embraced the new structure and directions. It is fair to say that there is a real buzz around Menzies.

Last year saw a significant expansion of the Menzies team – both in terms of numbers and capacity, and our workforce increased by almost 25 per cent. Particularly pleasing is the expansion of our Indigenous workforce by an incredible 66 per cent over 2006. We also managed to increase our funding base – total research income for 2007 was over \$21.5 million, that's almost \$5 million more than in 2006.

Our growth in numbers continues to put pressure on Menzies headquarters at the Royal Darwin Hospital Campus. Thankfully, 2007 saw welcome announcements from the Australian and Northern Territory Governments of \$10.5 million to help us expand our existing premises. Construction should begin in 2008, and will allow us to essentially double our capacity over the next decade.

Recruitment of more senior staff has been a priority since I started at Menzies. I am pleased that we have been able to make some significant senior appointments and have more to come in 2008. We welcomed Professor Anne Chang as the head of our Child Health Division. Anne is a superb researcher and clinician, and has been the catalyst for significant expansion of the Division already.

We were also able to confirm the appointment of Associate Professor Phil Giffard as Head of Laboratory Science. Phil is a superb molecular biologist with particular interests in the genetics of antibiotic resistance in bacteria – his work will complement our existing laboratory research agenda, and I look forward to the laboratory growing and developing under his leadership. Phil starts at Menzies in early 2008.

Ms Bilawara Lee was welcomed as the Manager of our newly created Indigenous Development Unit, whose brief is to foster the recruitment and development of Indigenous staff and students and to develop strong and lasting partnerships with the Indigenous communities in which we work. The unit also began to manage the process of establishing 'research hubs' in remote communities thanks to financial support from the Menzies Foundation. We also awarded the inaugural Ian Potter Foundation Indigenous Research Fellowship to Daniel Mulholland. This fellowship was created to encourage Indigenous people to explore research, with a view to making it a longer-term career.

Once again, Menzies staff were successful in gaining recognition for their work. Congratulations to Prof Nick Anstey who was awarded the NT Research and Innovation Tropical Knowledge Research Award for his malaria research in the region; Dr Yin Paradies who was awarded both the Scholar of the Year at the National NAIDOC Awards and the Chairman's Special Commendation at the Northern Territory Research and Innovation Awards; and Dr Geoff Isbister who was listed as one of Australia's Top Young Scientists in Cosmos magazine. We also created two new named Menzies scholarships: Dr Tom Snelling was awarded the Alan Walker Scholarship in Child Health Research; and Dr Jaqui Hughes was awarded the Gurdiminda Scholarship for Indigenous Research.

The first of these named scholarships was created in honour of a truly great Territorian who passed away during 2007. Like everyone who knew Professor Alan Walker, I have been left permanently affected by his wonderful influence. There are few people in history who can claim such a dramatic impact in terms of saving the lives of Aboriginal children as Alan could. He is sorely missed by all of us.

It was also a year of significant research outcomes and this was reflected in the number of publications produced by Menzies researchers with over 110 publications during 2007.

Research highlights of the year included the commencement of a study monitoring and evaluating Aboriginal tobacco use.

Smoking is twice as common in Indigenous populations and this project will increase our understanding of Indigenous smoking. This increased knowledge and understanding will be used to support evidence based policies for Indigenous tobacco control.

Other highlights included the commencement of the SISTER study which will help to increase understanding of vulvar cancer in Aboriginal communities; completion of the 'Health Land, Healthy People' project which has demonstrated superior Indigenous health outcomes associated with participation in natural and cultural resource management activities; and publication of the first results from the baseline component of the DRUID study, with more to come in 2008. This study will provide important new insights into the health and well-being of Indigenous people living in urban areas.

Our International Division grew rapidly in 2007. We were successful in gaining two Australian Leadership Awards for overseas researchers to train with us. Dr Rini, a paediatrician from Indonesia, received the award for her proposal to study the burden of malaria in pregnant women and infants in Papua, with the goal that this should inform better maternal child health interventions. Dr Rini, was also one of only four Indonesians to also receive a prestigious Allison Sudradjat Award, that provides additional funding to implement her research into practice following completion of her PhD; and Roselyn Ritika, a microbiologist from Fiji, is well on the way to completing her Masters through CDU. We also proudly graduated Nelson Martins with his PhD – Nelson has since become the Minister of Health for Timor Leste, and we are currently working with his team to develop stronger links between Menzies and his country. And towards the end of the year, we were finalising plans to be one of three institutions forming a new Knowledge Hub in Women's and Children's Health for AusAID, the Australian overseas aid organisation.

We began to diversify our funding base during 2007, thanks in part to the efforts of our Communications and Development Unit which started building relationships with philanthropic and corporate partners. This includes a partnership with Dean Rioli and Kevin Sheedy, both ex-Essendon Football Club legends, and the creation of the 'Rioli Fund for Aboriginal Health, which will raise much needed funds for our Child Health and Healing and Resilience research programs.

During 2007, after a gap of several years, we reinstated the Menzies Oration, with Aboriginal and Torres Strait Islander Social Justice Commissioner Mr Tom Calma speaking on the subject of 'What Does A Human Rights Approach Offer In Improving The Health Of Indigenous Australians?'. This will now become an annual event. We also welcomed Mr Ray Martin to Darwin to launch the Indigenous Ear InfoNet project and Dr Val Asche, a long term friend of Menzies, was kind enough to present the Inaugural 'Ryan Prize' (for a Menzies team member who has made an outstanding contribution to the School) to Mrs Norma Bengner.

Of course, 2007 was an incredible year in politics. The Australian Government Intervention in the NT dominated the year from many perspectives, and at the end of the year we saw a new government in Canberra and new leadership of government in the NT. I am optimistic about the plans of both the current Federal and NT Governments, and that this will create opportunities for Menzies to make an even greater commitment to health and well-being of Indigenous people.

Looking to 2008 and beyond, there are more challenges, growth and opportunities ahead. We will expand physically in our new building, and in new research areas. I expect that our partnership with the School of Social Policy Research at Charles Darwin University will bear fruit as we seek to establish a Centre for Education and Developmental Health. And plans are already advanced for new programs, including recruitment of new senior research staff, in the areas of substance abuse, child protection, and international child health.

Menzies is a wonderful institution that makes an important contribution to the health of Australians and people in nearby countries. It also happens to be a great place to work. That combination of outstanding productivity and an enjoyable work environment are only possible because of the amazing people who work at Menzies, and everyone else who helps us from outside. To the staff, students, Board members, and friends of Menzies, I offer my thanks for making 2007 a great year, and giving us optimism for even greater things to come.



Professor Jonathan Carapetis





## a message from the indigenous development unit

It has been another busy year at Menzies, with renewed emphasis on change, development and progress.

Indigenous staff have continued to contribute to Menzies research programs in the lab, clinic and field and have made a valuable contribution again this year.

The role of the Indigenous Development Manager was established in 2007 with a focus on the development and implementation of the Menzies Indigenous Employment Strategy, the establishment of an Indigenous Advisory Committee and a need to support and develop Menzies Indigenous staff and students.

Late 2007 saw the expansion of the unit, with the transfer of existing staff from other parts of the organisation and the recruitment of further team members making up the balance of the unit.

Initial priorities for the unit have included making a significant contribution to the recruitment, retention and professional development of Indigenous staff; the development of processes to ensure a culturally safe environment for staff; establishment of the Indigenous Staff Network; and advising staff on workplace issues where Indigenous issues or Indigenous staff are involved.

In addition, a close relationship has been established between the unit and the Education and Training Division to allow strategies to be developed to attract Indigenous students to Menzies' academic programs and the unit is also responsible for supporting the general well-being of Indigenous students.

Late 2007 also saw Indigenous staff take part in planning exercises to identify key priorities, strengths, gaps and challenges for 2008 and strategies will be developed to progress these ideas further.

Last year saw a number of Indigenous staff move on from Menzies to pursue other pathways and progress their careers. I thank them for their valuable contributions and wish them every happiness and success in their future endeavours. The year also saw the arrival of a number of new Indigenous staff and I would like to welcome them all to the Menzies family. Amazingly, the numbers of Indigenous staff increased by over 60 per cent in 2007 and this is testament to the renewed focus on Indigenous staff development, training and retention.



Many great things were accomplished in 2007, but the year ahead brings with it further challenges, priorities and issues and demonstrates to us that although progress has been made, much more can be done.

With the unfaltering level of conviction and commitment shown by Menzies Indigenous staff, we look forward to tackling the challenges of the future and reaping the rewards of our culturally diverse workplace.

I would like to acknowledge the efforts of our Indigenous staff, our community partners and their representatives, the CRC for Aboriginal Health and other Indigenous organisations, who, not only facilitate our research, but are the heart of our culturally rich environment – those who offer us generosity, trust and friendship above and beyond the workplace.

Bilawara Lee

## child health division

The building blocks for good health are laid early in life. That is why Menzies researchers are striving to discover ways to prevent and treat conditions which are affecting the health of Indigenous children.

It's a sad fact that young Indigenous people are more likely to suffer from diseases such as pneumonia and that four in five children in remote Indigenous communities have hearing loss because of severe ear infections. Indigenous children are more likely to be hospitalised than non-Indigenous kids, and seven out of every ten Indigenous children can expect to have scabies and skin sores in the first year of their life.

Poor health and poor education are strongly linked. A child suffering from poor nutrition or multiple ear infections will have poor concentration and learning ability which can seriously affect the way they live their lives into the future.

Here at Menzies, we want to help the Indigenous children of today become the healthy adults of tomorrow. Our researchers are discovering better ways to prevent and treat common problems and we are working with local people to help them gain the skills to improve the health of the next generation of Indigenous adults.



Divisional Head, Professor Anne Chang (first row centre) and the Child Health Division program leaders (absent Dr. Nigi Brown and Dr. Susan Conroy)







## Research Priorities

The aim of the newly created Child Health Division is to bring together existing Menzies child health research, increase research into immunisation and vaccine-preventable disease and intervention studies to prevent infections and improve management of common diseases affecting Indigenous children. The Division has also instigated new research examining the links between education and health and novel approaches to improving health and developmental outcomes in early childhood. The landmark Aboriginal Birth Cohort study continues to provide unparalleled insights into the links between early childhood experiences and chronic disease in later life. Research into ear, oral, respiratory and skin health continues to be a major focus of the Division's work.

## Research Projects

### Rheumatic Heart Disease

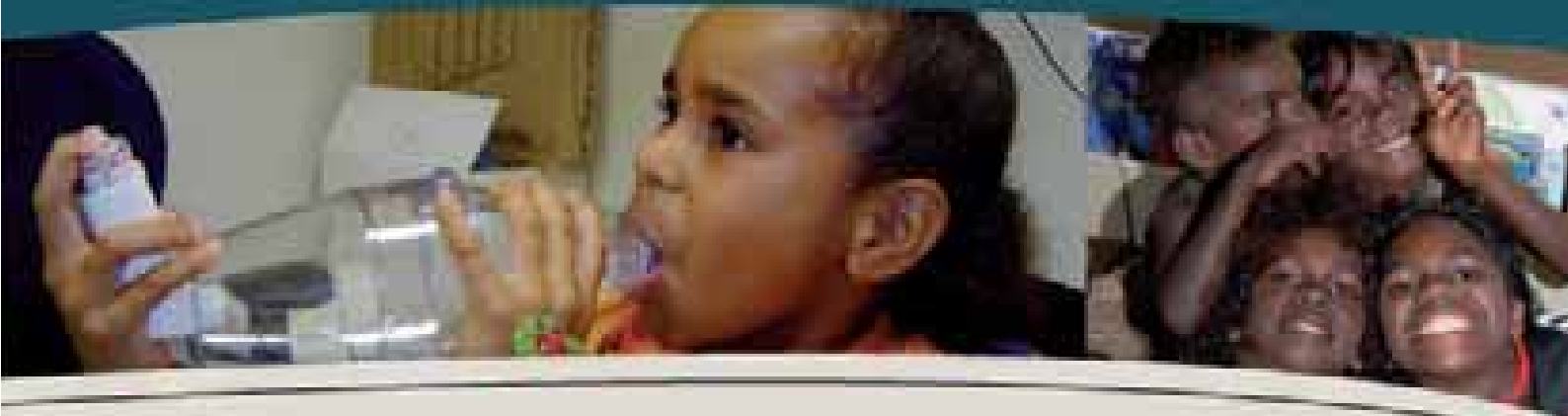
- Screening for rheumatic heart disease in Indigenous children
- National surveillance for acute rheumatic fever through the Australian Paediatric Surveillance Unit

### Immunisation

- Effectiveness and use of the 23-valent pneumococcal polysaccharide vaccine
- Evaluation of the role and function of the PneuMum Study Indigenous Reference Group as a model for conducting research involving children in the Northern Territory
- PneuMum: a randomised controlled trial of pneumococcal polysaccharide immunisation for Aboriginal and Torres Strait Islander mothers to protect their babies from ear disease

### Early Learning & Parenting

- "School Readiness" in Indigenous children – bringing together the health and education research agendas



## Skin, Strep & Scabies

- Healthy Skin Program
- Global GAS vaccine based on the M-Protein

## Oral Health

- A community-randomised controlled trial of fluoride varnish application to children's teeth and health promotion to prevent dental decay in Aboriginal pre-school children (Strong Teeth for Little Kids)

## ABC

- Aboriginal Birth Cohort Study: from childhood to adulthood

## Respiratory Health

- Burden of influenza and other respiratory viruses among Aboriginal children in the Top End
- The incidence of hospitalised, radiologically diagnosed pneumonia in Aboriginal children aged less than two years in the Northern Territory
- Improving the management of respiratory health in Indigenous children
- Multi-centre Bronchiectasis Study: A collaborative and international study of Bronchiectasis in Indigenous children
- National multi-centre Cough Guideline Study

## Ear Health

- Azithromycin versus placebo in the treatment of asymptomatic acute otitis media in young Aboriginal children (AAAOM)
- Defining the interaction between respiratory viruses and bacteria as an important cause of acute tympanic membrane perforation in Indigenous infants (VIABLE)
- Implications of nonencapsulated *Streptococcus pneumoniae* carriage for maintenance of antibiotic resistance genes and the efficacy of pneumococcal conjugate vaccine (Prevenar) for pneumococcal disease (SPINICA)
- Pilot study of a novel clinical application (metagenomics) for Indigenous health
- The Australian Indigenous EarInfoNet – An Ear Health and Hearing Web Resource and Network
- Mathematical modelling of bacterial carriage in children (MMAPS)
- Reducing the burden of infectious disease in young Aboriginal children – an evidence-based, multidisciplinary approach

## Highlights of 2007

- Menzies researchers led three Aboriginal and Torres Strait Island specific national workshops: Immunisation in Indigenous Australians, linking education and health, and consensus guidelines for the management of bronchiectasis.
- We welcomed two program leaders (Dr Ngiare Brown and Georgie Nutton) to increase the scope and expertise of the Child Health Division to include child protection and early childhood research.
- 'Wave 3' of the Aboriginal Birth Cohort was completed – almost 470 examinations were carried out in over 30 communities.
- Commencement of 'Top End Cohort' study which aims to study the physical and emotional well-being of adolescents born in Darwin between 1987 – 1990.
- The 'PneuMum' study established that vaccination of mothers has lead to increased antibody transfer to their babies. The study will continue to monitor whether this also leads to increased antibody transfer in breast milk and ultimately whether it leads to prevention of ear disease. Almost 90 women have enrolled in the study to date and 78 babies had been born by the end of 2007.
- A study commenced evaluating the role and function of the 'PneuMum' Indigenous Reference Group as a model for conducting research in Indigenous Communities. Outcomes of this study will guide future researchers in how to meet cultural and ethical considerations when working with Indigenous people.
- The 'PARTI' study reported that 7-valent pneumococcal conjugate vaccine is immunogenic in Indigenous babies, and that the 23-valent vaccine (Pneumovax) elicits both a booster response and a response to non-primed serotypes in 18-month-old children.
- The 'BLOOM' study published findings that a very high microbial density in the nasopharynx is established in Indigenous infants within weeks of birth. Indigenous children have a much higher microbial density in the nasopharynx than non-Indigenous children with the same ear diagnosis – this may explain persistent disease in Indigenous children.
- Work commenced using mathematical modelling techniques applied to combined data sets to improve understanding of the natural history of ear disease and the impact of antibiotics compared to placebo on cure or progression to tympanic membrane perforation.
- Official launch of the Indigenous Ear InfoNet took place with Mr Ray Martin and membership of the InfoNet network increased to almost 200 members.
- The inaugural 'Alan Walker Child Health' lecture series took place with the theme of 'Improving Aboriginal Child Health, what works and what's new'.
- The data collection phase of the 'Healthy Skin Program' was completed. Between 2004 – 2007 the Healthy Skin Team made 99 community visits to participating communities, conducted 5944 skin assessments on 2322 children under the age of 15.
- Visits to 15 communities across the NT continued as part of the 'Strong Teeth for Little Kids' project and fluoride varnish application took place in over 80 per cent of participants. Further research in the area of oral health has been strongly supported by the project Indigenous Reference Group.
- Plans to establish a joint 'Centre for Education and Developmental Health' in conjunction with the School of Social Policy Research at Charles Darwin University were commenced. This will be a major initiative of 2008.
- Collaboration across Menzies Divisions and Northern Territory government to develop a Child Protection research program to increase local and national capacity in this area.
- Menzies researchers played a leading role in the development of a national strategy for rheumatic heart disease control, which is expected to be implemented in 2008 as part of the new Australian Government's Indigenous health policy agenda.



## Publication Highlights

The Division published 55 peer reviewed papers during 2007. Highlights included:

- Chang AB et al. Calcitonin Gene-Related Peptide (CGRP) relates with cough sensitivity in children with chronic cough. *Eur Respir J.* 2007; 30:66-72
- Dunbar M et al. Clear not simple: an approach to community consultation for a maternal pneumococcal vaccine trial among Indigenous women in the Northern Territory of Australia. *Vaccine.* 2007; 25(13):2385-8.
- Leach AJ et al. The burden and outcome of respiratory tract infection in Australian and Aboriginal children. *Pediatr Infect Dis J.* 2007; 26:54-57.

## Awards and Achievements

- Three successful NHMRC grants totalling \$1.7 million.
- Successful NHMRC training fellowships for Dr Sue Skull and Kerry-Anne O'Grady and PhD scholarship for Robyn Marsh.
- Prof Jonathan Carapetis was awarded Northern Territory Australian of the Year Award.
- Prof Jonathan Carapetis was selected as one of Australia's 100 smartest people, and one of the top ten in Medicine and Health, in the Bulletin Magazine's "Smart 100" list.
- Dr Gurmeet Singh received Early Researcher Award at the 5th International Congress on Developmental Origin on Health and Disease.

## Research under the Spotlight – Aboriginal Birth Cohort Study

In what is one of the largest studies of its kind in the world, Menzies researchers have monitored the health of over 600 Indigenous children since they were born as part of the Aboriginal Birth Cohort.

At birth, it was found that 25 per cent of the babies in the cohort were growth retarded when they were born – compared to a national average of 10 per cent. There are theories that relate poor growth in the uterus to chronic disease in adulthood and with this birth cohort, our researchers are in an ideal position to discover if growth retardation in these babies is contributing to the high rates of chronic disease currently seen in the adult Aboriginal population. This will have important public health implications and could potentially reveal a window of opportunity in childhood to prevent the development of chronic disease in adult life.



## healing and resilience division

Many Indigenous people live their lives whilst suffering from mental health problems and Indigenous people are at a higher risk of developing a mental disorder than other Australians. Whilst Menzies is looking for ways to improve mental health we are also looking at mental health prevention by examining the tools which a person or community needs and ways for people and communities to stay socially, spiritually, emotionally and mentally strong.

Research has shown that Indigenous people are more likely to go to hospital for help with mental disorders linked with alcohol, kava, petrol and marijuana use and that Indigenous people die from mental disorders linked with substance misuse at more than 11 times the rate of non-Indigenous people.

At Menzies we are striving to communicate 'two-way' mental health messages and to discover ways to overcome barriers caused by language and literacy.

Menzies' Healing and Resilience Division tackles these challenges by empowering Indigenous people to make them strong in mind and body.

Our researchers give people the tools to recognise and overcome the problems causing mental illness, such as social, work and family stress.



*Divisional Head, Dr Tricia Nagel*





## Research Priorities

The establishment of a Division dedicated to healing and resilience research represents a new research direction for Menzies. With a focus on Indigenous well-being, this Division includes existing research into mental health and substance misuse as well as an ambitious research agenda into social and family structures and function, factors that promote resilience and good mental, physical and emotional health and how these factors differ between individuals and communities in Indigenous and non-Indigenous settings. The Division is exploring new approaches to delivering mental health care and substance misuse prevention programs and developing practical strategies to improve mental health and wellness in an environment that accommodates cultural diversity and respect.

## Research Projects

### Mental Health

- Australian Integrated Mental Health Initiative – NT (AIMHI NT)
- AIMHI NT DVD Training and education resources
- AIMHI NT Mental Health Care Planning Training
- Evaluation of an integrated strategy to promote the health of people with chronic or recurring mental disorders

### Substance Misuse

- Development and production of petrol sniffing flipcharts for men and women
- Development of a relapse prevention protocol for Indigenous people with chronic mental illness in remote communities
- Neurocognitive and social changes associated with unlead petrol sniffing and abstinence from further sniffing
- The development of culturally-appropriate cognitive assessments with applications in substance abuse and mental health with Indigenous clients
- The nature of brain function recovery following abstinence from petrol sniffing

## Highlights of 2007

- Continuation of the AIMHI NT program which is focused on Indigenous mental health promotion in close collaboration with service providers and community mental health workers.
- The development of a range of culturally appropriate resources which are being trialled in a number of interventions targeting relapse prevention, mental health literacy, outcome measurement and workforce development.
- The AIMHI NT team conducted 11 workshops and trained more than 200 service providers across Australia with extremely positive feedback from attendees.
- The launch of a new AIMHI NT mental health flip chart – ‘make change, grow strong’, with further resources planned for 2008.
- The trial of a mental health relapse prevention protocol has provided new information about stressors, early warning signs, illness symptoms, strategies for relapse prevention and early intervention, goal setting, psychoeducation and mental health research in the remote Indigenous context.
- Cognitive assessments collected on approximately 100 adults and 100 adolescents using ‘CogState’ computerised culturally appropriate cognitive assessment tool, and selected mental health screening questions taken from the Strong Souls assessment of social and emotional well-being designed for use with Indigenous people.
- Educational flipcharts designed and developed to communicate neuroscientific concepts to Aboriginal groups in culturally relevant ways, about Mental Health, Sniffing (including gender specific versions), Alcohol and Cannabis.
- Participating communities have been visited and comprehensive assessments have been conducted with participants of our petrol sniffing study for which baseline assessments were conducted over 10 years ago. Assessments included tests of neurological function, cognition, blood lead levels and other biochemical markers, psychosocial function and ocular motor function.



# healing and resilience division



## Publication Highlights

The Division published 5 peer reviewed papers during 2007. Highlights included:

- Nagel T. An approach to management of psychotic and depressive illness in remote Indigenous communities. *Australian Journal of Primary Health Care*.
- Nagel T et al. Developing Stories in Mental Health. *Australian e-Journal for the Advancement of Mental Health (AeJAMH)* accepted April 2007.
- Cairney S et al. Cognitive impairment in Aboriginal people with heavy episodic patterns of alcohol use. *Addiction* 2007; 102(6):909-915.

## Awards and Achievements

- AIMHI NT was awarded the 2007 Mental Health Society 'Gold Award' for rural health in recognition of their achievement in creating innovative multimedia resources to promote mental health using traditional story telling approaches that have grown from a collaboration with Indigenous clinicians.
- Two PhD Scholarships were granted to Divisional Staff. Nicole Berkhout received a University Postgraduate Research Scholarship from CDU and Kylie Dingwall received a Training Scholarship for Indigenous Australian Health Research from the NHMRC.
- Divisional head, Ms Tricia Nagel, was awarded the Royal Australian and New Zealand College of Psychiatrists' Rural Research Award 2007.
- Award of grant through the Lord Mayors Association in collaboration with the Addiction Medicine centre at St. Vincent's Health (Vic) to produce and evaluate educational resources on drugs and the brain.

## Research under the Spotlight – AIMHI NT

The Australian Integrated Mental Health Initiative in the Northern Territory (AIMHI NT) has been working with people in the NT, remote and urban, to learn more about the experience of Indigenous people with mental illness. AIMHI has looked at the journey of Aboriginal people through mental health services. The project has explored strategies to facilitate the journey of clients and their carers from community to primary care to specialist mental health services and home again.

The project has developed a range of multimedia resources in collaboration with Aboriginal Mental Health Workers which have supported the following key activities:

- Community wide mental health promotion
- Service provider training in cross cultural care planning
- Mental health literacy surveys of service providers
- Hospital admission data analysis
- Development of screening, assessment and outcome measurement tools
- Trial of a care planning intervention with client with mental illness
- Development of evaluation tools for community based gambling intervention
- Research transfer through website, newsletters, seminars, workshops, conference papers, journal articles



## *international health division*

Each year around the world, millions of people die from diseases which thrive in tropical environments.

Working with our regional partners, our researchers are striving to improve the health of our neighbours and discover better ways of preventing disease and developing affordable treatment regimes which will help millions of people live a healthier tomorrow.

Our global health research spans some of the major public health problems in our region – malaria, tuberculosis and severe bacterial infections – diseases which kill millions in countries to our north with worsening drug resistance posing a major threat to controlling these diseases.

Our researchers work with partners in many countries across South East Asia and the Pacific, including Indonesia, Thailand, Fiji, Papua New Guinea and East Timor.



*Divisional Head, Professor Nick Anstey*

## Research Priorities

The establishment of a new, stand alone, International Health Division has increased the scope of Menzies' international research activities. The Division has four major research and training themes. The first three involve the prevention and treatment of infections of

major public health importance in the region – malaria, tuberculosis and bacterial infections and their complications. The fourth theme is research and training to improve women and children's health in our region.

## Research Projects

### Malaria

- Defining the epidemiology and burden of malaria in Papua, Indonesia
- Cost-effectiveness of community deployment of artemisinin-based combination therapy in reducing the burden of falciparum and vivax malaria
- In vitro and molecular studies of multidrug resistant malaria
- Can arginine be used to help treat malaria?
- Does nitric oxide protect against lung injury in malaria?
- Genes protecting from severe malaria
- Severe disease from *Plasmodium vivax*
- Understanding cellular immune responses to malaria and sepsis

### Women and children's health

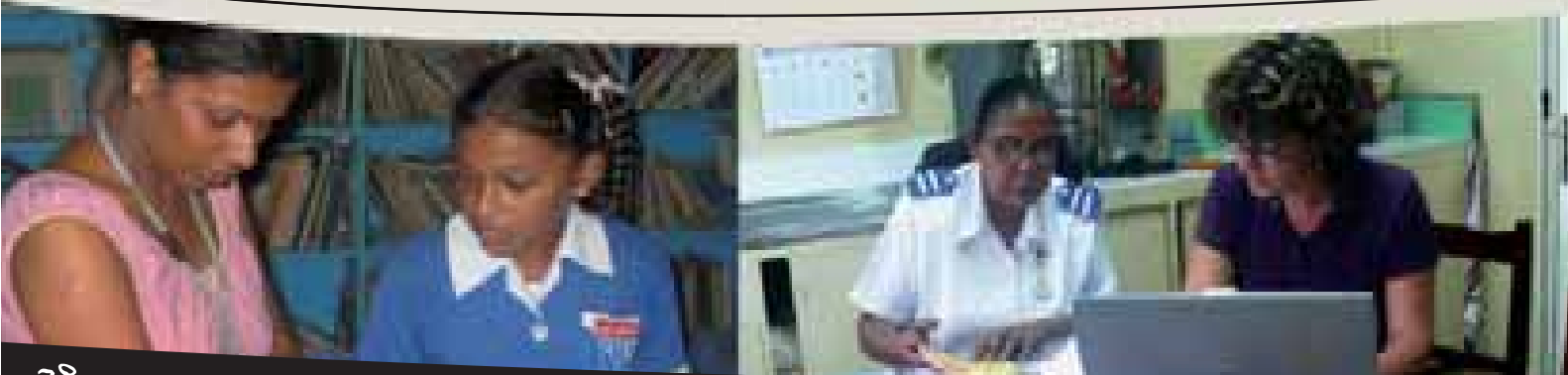
- AusAID Women and Children's Health Knowledge Hub
- Impact of malaria on women's and infant health

### Tuberculosis

- Improving treatment outcomes in tuberculosis

### Bacterial infections and their complications

- World Heart Federation Rheumatic Fever Secondary Prevention Program in the Pacific Island Nations
- Fiji group A streptococcal project – a comprehensive disease epidemiological study with a view to eventual clinical trials of a new rheumatic fever vaccine
- Fiji Rheumatic Heart disease screening – exploring a feasible and sustainable model for a resource-poor setting
- Fiji Pneumococcal Project – a study of alternative pneumococcal vaccine regimens for children in developing countries
- Endothelial function impairment in sepsis: clinical and biochemical correlates
- Do statin drugs improve endothelial function in sepsis? The STREAMS study
- Prospective Epidemiology of Sepsis in the Top End – PRESTO



## Highlights of 2007

- Invitation from AusAID to jointly lead a major Women and Children's Health Specialist Knowledge Hub. The Hub will harness and focus technical experts, researchers and practitioners within Australia and within the region to generate and share knowledge and promote innovation to strengthen the evidence base of work undertaken to improve women's and children's health.
- Publication of results from two large clinical trials in over 1000 patients showing a new artemisinin combination therapy, dihydroartemisinin-piperazine, to be the most effective treatment for drug resistant malaria in Papua.
- Undertaking comprehensive studies of the impact of malaria on maternal and child health in Papua, and evaluating the impact of wide community deployment of new artemisinin combination therapy on outcomes.
- Publication of a landmark study showing failure of the cells lining blood vessels to produce enough nitric oxide to prevent malaria parasites from causing severe disease; a new mechanism which has led to clinical trials of a natural product, arginine, to treat severe malaria.
- Identifying a major burden from multi-drug resistant *Plasmodium vivax* in our region, including severe malaria and mortality. We have shown that vivax malaria is a profoundly neglected public health problem and not benign as previously thought.
- Publication of the first comprehensive in vitro characterisation of *Plasmodium vivax* drug sensitivity from a region endemic for chloroquine-resistant vivax malaria and identifying novel molecular mechanisms for resistance to chloroquine and other antimalarials.
- Detailed studies of immune responses in malaria and how these may contribute to protection and/or severe disease.
- Development of a clinical trial to test whether arginine and/or vitamin D supplementation can improve treatment outcomes in patients with pulmonary TB.
- Commencement of a clinical trial in patients with severe infections testing whether statin drugs, commonly used to lower cholesterol, can improve the function of endothelial cells lining blood vessels and reduce inflammation.
- Development of a model for rheumatic heart disease control in the Pacific, including establishment of demonstration sites in Fiji and Samoa, with penicillin compliance rising to 84%, and two Pacific-wide regional workshops.
- Established World Heart Federation's website for rheumatic heart disease (RHDnet - see [www.worldheart.org](http://www.worldheart.org)) - an international resource for clinicians, health practitioners and policy-makers in developing countries where the disease is still common.
- Completion of data collection for a comprehensive study of the burden of group A streptococcal diseases in Fiji, with a view to proceeding to trials of a new rheumatic fever vaccine in coming years.

## Publication Highlights

The Division published 26 peer reviewed papers during 2007. Highlights included:

- Carapetis J R. Rheumatic Heart Disease in Developing Countries. *N Engl J Med* 2007 Aug2; 357(5):470-4.
- Ratcliff A et al. Comparison of two fixed dosed artemisinin combinations for drug resistant falciparum and vivax malaria in Papua, Indonesia. *Lancet*; 2007; 369:757-65.
- Yeo TW et al. Impaired nitric oxide bioavailability and L-arginine-reversible endothelial dysfunction in adults with falciparum malaria. *J Exp Med* 2007; 204:2693-2704.
- Suwanarusk R et al. Chloroquine resistant *Plasmodium vivax*: in vitro characterisation and association with molecular polymorphisms. *PLoS ONE* 2007; 10:e1089.
- Anstey NM et al. Lung injury in vivax malaria: pathophysiological evidence for pulmonary vascular sequestration and post-treatment alveolar-capillary inflammation. *J Infect Dis* 2007; 195:589-596.





## Awards and Achievements

- Dr Nelson Martins awarded his PhD for his tuberculosis studies with Menzies in East Timor, and appointed Minister of Health in the new East Timor Government.



*Dr Nelson Martins (left) with his PhD supervisor, Dr Paul Kelly*

- Dr Ric Price's work in establishing the World Antimalarial Resistance Network (WARN) recognised by his election to its Board.
- NT Research and Innovation Tropical Knowledge Research Award was awarded to Prof Nick Anstey for his collaborative malaria research.
- NHMRC Practitioner Fellowship awarded to Prof Nick Anstey.
- NHMRC Program Grant to a Queensland Institute of Medical Research–Menzies International Health team.
- Dr Ric Price invited speaker at prestigious Gordon Malaria Conference in Oxford.
- Award of MSc to Dr Hadjar Siswantoro from the Indonesian Ministry of Health.
- Dr Joshua Davis awarded an NHMRC PhD Scholarship to study the pathophysiology and treatment of severe sepsis.

- AusAID Australian Leadership Award to Dr Rini Poespoprodjo, paediatrician with the Timika malaria collaboration in Indonesia for her proposal to study the burden of malaria in pregnant women and infants in Papua, with the goal that this should inform better maternal child health interventions. Dr Rini was one of only four Indonesians to also receive a prestigious Allison Sudradjat Award which provides additional funding to implement her research into practice following completion of her PhD.
- PhD student, Dr Tsin Yeo, published the results of his adjunctive treatment trial in Malaria in the prestigious Journal of Experimental Medicine.



*Dr Rini Poespoprodjo (left) and Wendy Fobia at Timika hospital*



### **Research under the Spotlight – Timika Research Station**

Menzies researchers have been collaborating with the Indonesian Ministry of Health's National Institute of Health Research and Development for twelve years and share a joint research facility in Timika, Papua, Indonesia which includes a laboratory and 12 research staff. Our research program in Papua involves a wide range of community and hospital-based projects aimed at improving the prevention and treatment of malaria and TB, with a focus on evaluating new and affordable combination treatments for malaria, improving our understanding and treatment of severe malaria and improving TB treatment outcomes. These studies are undertaken in partnership with local health care providers and Ministry of Health researchers and policy makers.

*Below from left: Daniel Lambah,  
Tsin Yeo, Nick Anstey and  
Yohannes Kalvein*





## *preventable chronic diseases division*

Alarminglly, Indigenous people die 15 to 20 years younger than other Australians and more than half of this health 'gap' is caused by chronic diseases such heart disease, stroke, diabetes, chronic respiratory disease and kidney disease.

Most chronic diseases are preventable and our Preventable Chronic Diseases Division researches ways to reduce risk factors such as smoking, prevent and treat conditions such as diabetes and chronic kidney disease, and promote healthy eating and active lifestyles in Indigenous communities.

We are also researching both the causes and prevention of chronic disease and we work at all levels from influencing policy with our findings to transferring those findings into workable, everyday solutions.

Our researchers work in both clinical settings and urban and remote Indigenous communities to discover solutions to reduce the risk and impact of chronic diseases.







*Divisional Head, Dr Louise Maple-Brown (until September 2007)*



*Divisional Head, Dr David Thomas (from September 2007)*





## Research Priorities

The Preventable Chronic Disease Division's research is focusing on treatment and prevention of diabetes, the use of community monitoring tools to evaluate tobacco control interventions and promotion of healthy eating and active lifestyles within Indigenous communities.

## Research Projects

### Clinical Research

- Validating estimates of glomerular filtration rate (eGFR) in Aboriginal and Torres Strait Islander Australians
- A randomised trial of increased fish and fruit in the food eaten whilst Aboriginal people are having renal dialysis
- A randomised trial of pioglitazone versus metformin monotherapy in Aborigines with Type 2 Diabetes: effects on metabolic and cardiovascular parameters

### Tobacco

- Monitoring and Evaluating Aboriginal Tobacco Control

### Nutrition

- Exploring determinants of food choice and the challenges of nutrition improvement with a community in North East Arnhem Land
- Developing a store monitoring tool as part of the Remote Indigenous Stores Project
- Supporting the Yolngu Life: Yolngu Walngakum. "Building Healthy Communities"

## Highlights of 2007

- Commencement of the 'Monitoring and evaluating Aboriginal tobacco control' project. Smoking is twice as common in Indigenous people when compared to non-Indigenous people and this project will increase our understanding of Indigenous smoking by describing Indigenous perceptions of why people smoke or quit, the social determinants of Indigenous smoking and national and local trends in Indigenous smoking. This increased knowledge and understanding will be used to support evidence-based policies for Indigenous tobacco control.
- Poor nutrition is a major contributor to the extremely high prevalence of chronic disease experienced by Indigenous Australians, particularly for people living in remote communities. Our study with one remote community showed that similarly to non-Aboriginal people living in situations of poverty, Aboriginal people experiencing low income and high cost of goods and services may choose more expensive nutrient dense foods for less expensive energy dense (nutrient poor) foods even when the benefits of a high quality diet are understood.

# preventable chronic diseases division



- A successful community-led health festival was supported through the 'Building Healthy Communities – Yoŋgu Life Waŋgakum' project. This was the fourth year that the festival was held at Galiwin'ku community and this has led to the development of health festivals throughout the North-East Arnhem region.
- The 'Building Healthy Communities' project has resulted in the uptake of line-dancing in Galiwin'ku community as a recreational and physical activity for young and middle-aged women and has seen a three-fold increase in fruit sales through the community store.
- The development of a tool and procedure manual for remote community stores which can be used to provide timely and meaningful information about the turnover and sale of foods.
- Continuation of the Diet and Dialysis study or 'Fish and Fruit' study which compares a standard haemodialysis diet with a modification of Mediterranean diet for patients whilst receiving dialysis. All data has now been collected, with results expected in 2008. It is hoped that the results will inform policy on the nature of diets provided for dialysis patients at renal units.
- Ethics approval received and pilot data collection commenced for the Top End of the NT for the 'eGFR Study' and community consultation commenced in Central Australia. This study will improve the health and well-being of Indigenous Australians by studying the most accurate method to assess kidney function.

## Publication Highlights

The Division published 5 peer reviewed papers during 2007. Highlights included:

- Maple-Brown LJ et al. Increased carotid intima-media thickness in remote and urban Indigenous Australians: impact of diabetes and components of the metabolic syndrome. *Clin Endocrinology*. 2007; 66:419-425.
- Maple-Brown LJ et al. Increased arterial stiffness in remote Indigenous Australians with high prevalence of cardiovascular disease. *J Hypertens*. 2007; 25:585-591.
- Pickering A et al. An audit of INR control in the Australian Indigenous setting. *Australian Family Physician* 2007; 36:959-60, 967.

## Awards and Achievements

- Two PhDs awarded to Divisional staff -Julie Brimblecombe and Vanessa Johnston.
- Funding received from the CRC for Aboriginal Health and NHMRC for the 'Monitoring and evaluating Aboriginal tobacco control' project.
- Divisional head, Dr David Thomas, gave invited keynote presentations at interstate tobacco conferences and at a national emergency medicine conference.

## Research under the Spotlight – The eGFR Study

There is an overwhelming burden of type 2 diabetes, chronic kidney disease and end-stage renal failure in Indigenous Australians. In this high risk population, it is vital that we are able to accurately measure kidney function. Glomerular filtration rate (eGFR) is the best overall marker of kidney function. However, differences in body build and body composition between Indigenous and non-Indigenous Australians suggest that estimates of eGFR derived for European populations may not be appropriate for Indigenous Australians.

By assessing kidney function in these high risk Indigenous Australian populations from Northern Queensland, Northern Territory and Western Australia, this project will determine a validated and practical measure of eGFR suitable for use in all Indigenous Australians.

## *services, systems and society division*

To improve Indigenous health we need to find out what we are doing right and what needs improving; not just in the health care system but in the social and physical environment – housing, social justice, employment, women’s and environmental health.

Our Services, Systems and Society Division looks behind the symptoms to determine the causes of ill health – if our systems are not working, we want to know why and how to fix it.

We are striving to address poor health outcomes with better health, social and non-medical services, including better access and coordination of services and research into the different ways people use health services.

Menzies researchers work alongside the staff of hospitals, clinics and local government councils to discover the best way to deliver health care across Australia.





*Division Head, Associate Professor Joan Cunningham*



*Above: Prof Sandy Cairncross, an international expert in water and sanitation in developing countries from the London School of Hygiene and Tropical Medicine, during his visit to Menzies and Wadeye in 2007.*

## Research Priorities

The work of the Services, Systems and Society Division is highly applied, with an underpinning philosophy of promoting health equity and social justice. This includes adding value through the analysis of existing datasets or documents as well as the collection of new data from individuals, groups and organisations.

The Division's applied research program aims to improve access to and use of affordable health and social services, improve the quality and coordination of health and social systems, improve our understanding of how social contexts, processes and socioeconomic factors can impact upon individual health and well-being and develop and improve information systems to enable monitoring of performance outcomes and to support evidence-based decision making.





## Research Projects

### Services & Systems for Chronic Disease

- Healthy for Life program – the Support, Collection, Analysis and Reporting Function (SCARF)
- A structured systems approach to improving health promotion practice for chronic disease prevention in Indigenous communities
- Community health centre organisation and quality of care for the prevention and management of chronic disease
- Improving health promotion practice for chronic disease in Indigenous communities
- Provision of Services as a Facilitator for the Continuous improvement Projects for the Early Detection and Management of Chronic Disease for Aboriginal & Torres Strait Islander People

### Comprehensive Primary Health Care

- Audit and Best Practice for Chronic Disease Extension
- Implementing the Aboriginal and Torres Strait Islander Adult Health Check
- Improving early detection and evaluating innovative prevention activities in remote areas
- Towards improving child health in disadvantaged communities

### Social Epidemiology

- At preschool and ready to learn? An assessment of prerequisite skills for writing and reading in children entering preschool in the Darwin, Palmerston and rural areas
- Building capacity in policy relevant, quantitative, social analysis and research in Indigenous health
- Healthy Land, Healthy People : Exploring the health benefits of Aboriginal natural resource management in northern Australia
- Socio-economic and Environmental Determinants of Health in Indigenous Communities in the Northern Territory
- The DRUID Study: Diabetes and Related disorders in Urban Indigenous people in the Darwin region
- National Indigenous Cancer Survival Project

### Equity & Social Justice

- Examining a core assumption of policy and services for older Indigenous Australians
- Kanamkek, Legend and Leadership: A study of leadership and succession focusing on the NW region of the NT
- IMPAKT: Improving Indigenous Australians' access to kidney transplantation

### Women's Health

- An epidemic of vulvar cancer in young women: investigating the role of Human Papillomavirus and genetic susceptibility
- Can fetal fibronectin predict labour at term?
- Family fighting – domestic violence in a remote Aboriginal community
- Polycystic ovary syndrome, reproductive health and metabolic abnormalities in Indigenous women in the Northern Territory

## Research Highlights

- Continuation of the national 'extension' phase of the 'Audit and Best Practice for Chronic Disease' (ABCD) project, with 51 health centres signed up. The aim of the extension phase of this project is to examine the application of the ABCD approach to other priority aspects of primary health care and to examine the requirements for routinisation of systematic quality improvement in Indigenous primary care services. After two cycles of intervention, the participating health centres have seen improvements in a number of key indicators.
- Establishment of an 'ABCD' North Queensland 'hub' and the launch of a new ABCD website ([www.abcdproject.org.au](http://www.abcdproject.org.au)).
- Completion of the ABCD Resource Kit to be used by participating health services and other health services interested in ABCD/CQI processes.
- Commencement of the 'Sister Study'. Over 100 women participated in the study in 2007 and received a comprehensive women's health check.
- Commencement of a pilot study examining whether a test to detect the presence of fetal fibronectin can predict the onset of labour. This may assist Aboriginal women and other Australian women in remote areas who are pregnant, to remain in their communities for as long as possible prior to giving birth.
- Improved health promotion is essential in addressing the major underlying causes of chronic disease such as poor nutrition, smoking and alcohol use – a new project commenced in 2007 which will develop, implement and evaluate a model of continuous quality improvement aimed at enhancing systems for health promotion practice in chronic disease prevention.
- Analysis of a range of existing datasets commenced in 2007 to compare the health profile and aged care service use of the older Australian population (aged 70 years plus). This work will help to improve care for older Indigenous people by looking at whether current policy is based on an accurate picture of health and by creating a better understanding of how well current policies are meeting their needs.
- The Social Determinants of Indigenous Health textbook was launched in Adelaide and Darwin.
- The CIPHER program held its 4th Annual Learning Conference, along with a short course on Health Policy and Politics, in July in Darwin.
- First results from the baseline component of the DRUID Study were published, with more to come in 2008. This study will provide important new insights into the health and well-being of Indigenous people living in urban areas.
- Completion of the 'Healthy Land, Healthy People Project'. This project demonstrated superior Indigenous health outcomes associated with participation in natural and cultural resource management activities. Results of this study will be published in 2008.
- The IMPAKT study team has undertaken a feedback tour of participating sites, and first results from the interview study have been published, with more to come in 2008. IMPAKT provides a comprehensive national investigation of disparities in access to kidney transplants for Indigenous Australians.
- Continuation of a student project which will determine whether Polycystic Ovary Syndrome (PCOS) is more common in Indigenous women and whether it has a relationship with diabetes and other risk factors for cardiovascular disease.

## Awards and Achievements

- Dr Liz McDonald was awarded an NHMRC post-doctoral fellowship, as well as an APHCRI (Australian Primary Health Care Research Institute) travelling fellowship.
- Dr Nikki Clelland was awarded an NHMRC post-graduate research scholarship.
- Dr Damin Si was awarded an APHCRI travelling scholarship to present his work at an international health services research conference.
- Dr Yin Paradies was named NAIDOC Scholar of the Year. He also received a Chairman's Award at the NT Research and Innovations Awards and was an invited keynote speaker at the Rural Health Colloquium in Tamworth.
- Dr Jacqui Boyle was an invited keynote speaker at the annual scientific meetings of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists and the Fertility Society of Australia.





- Dr Liz McDonald and Dr Damin Si were awarded their PhDs. Dr Jane Lloyd completed her PhD thesis and was recommended for the degree late in the year. Fay Johnston submitted her PhD thesis for examination.
- Prof Ross Bailie, Dr Nikki Clelland and their colleagues were awarded an NHMRC project grant for a project on improving health promotion in Indigenous communities.
- The 'National Cancer Outcomes for Indigenous Australians' study team completed an invited review on 'Cancer in Indigenous Australians' for Lancet Oncology.
- Dr Alice Rumbold, Dr Jacqui Boyle and colleagues were awarded an NHMRC project grant for a project examining attitudes to antenatal screening among Indigenous women and their health care providers. They were also awarded funding from the NT Research and Innovations Board for a pilot study on using fetal fibronectin to predict labour in pregnant women.
- Senior researchers from the Division were awarded a \$6.5 million Commonwealth contract to undertake the Support, Collection, Analysis and Reporting Function (SCARF) of the Healthy for Life program. The work is being done in partnership with the Australian Institute of Health and Welfare and SRA Information Technology.
- Dr Jane Lloyd was awarded the University of Sydney School of Public Health Cross Cultural Research Award.

## Publication Highlights

The Division published 18 peer reviewed papers during 2007. Highlights included:

- Carson B et al. Social determinants of Indigenous health. Crows Nest, NSW: Allen & Unwin 2007: 306 pages.
- Si D et al. Delivery of preventive health services to Indigenous adults: Response to a systems-oriented primary care quality improvement intervention. *Med J Aust* 2007; 187(8):453-7.
- Cass A et al. Decision-making about suitability for kidney transplantation: Results of a national survey of Australian nephrologists. *Nephrology* 2007; 12(3):299-304.
- Paradies YC et al. Racialized genetics and the study of complex diseases. The thrifty genotype revisited. *Perspect Biol Med* 2007; 50(2):203-27.

## Research under the Spotlight - The Sister Study

An epidemic of cases of vulvar cancer, a very rare cancer, has been identified in young Indigenous women living in remote communities in the Northern Territory. Vulvar cancer is over fifty times more common in women aged less than 50 years in these communities than in the total Australian population.

In young women vulvar cancer is thought to be caused by infection with cancer causing strains of human papillomavirus (HPV), particularly the strain known as HPV16. This project is investigating the cause of this epidemic. It will investigate whether HPV16 is more prevalent in these communities than elsewhere in Australia, whether there is a variant strain of HPV16 in these communities that is more virulent at causing cancer, and whether the disease occurs more commonly in families, which would mean that women in these communities inherit an increased susceptibility to vulvar cancer.





Divisional Head, Professor Bart Currie

## tropical and emerging infectious diseases division

The north of Australia may be a tropical paradise, but it also boasts some of the deadliest creatures in the world and its climate provides a fertile breeding ground for many tropical infectious diseases.

The Tropical and Emerging Infectious Diseases Division at Menzies is world renowned for its pioneering work in preventing and treating tropical infections and life threatening stings and bites and tracing the natural history of microscopic and macroscopic killers.

Our state-of-the-art laboratory equipment and methods are used to unravel the mysteries of infectious diseases in our region and to guard against new and expanding threats to our health in the light of environmental challenges such as climate change.





## Research Priorities

The Tropical and Emerging Infectious Diseases Division will continue to investigate specific illnesses of priority and monitor emerging infectious diseases in Indigenous people and others living in tropical and remote environments. The Division's research portfolio covers skin health, scabies and streptococci; melioidosis and emerging infectious diseases; local impacts of global climate change; adult respiratory health; and tropical toxinology.

The Division will focus on the prevention, diagnosis and treatment of current and emerging diseases. Epidemiology, clinical observations and basic laboratory work are interlinked on our multi-discipline approach to seeking a better understanding of the underlying disease processes and the complex influences over our unique and changing environment.

Importantly, the research of this Division, along with that of the International Health Division, will continue to strengthen Australia's capacity to prevent and respond to emerging tropical health threats in our region.

## Research Projects

### Skin Pathogens

- An Immunodiagnostic Assay for Scabies
- Australian *Leishmania* lifecycle investigation
- Characterising the biological role of *Sarcoptes scabiei* aspartic proteases
- Strategies to Improve the Diagnosis, Prevention, Treatment and Control of Scabies
- Community-associated methicillin-resistant *Staphylococcus aureus*: epidemiology, emergence and treatment
- Epidemiology of *Staphylococcus aureus* in the NT
- Mathematical modelling of streptococcal disease
- Molecular epidemiology of *Trichophyton rubrum*.

### Tropical Toxinology

- A randomised controlled trial of hot water (45°C) immersion versus ice packs for *Chironex fleckeri* stings
- An Investigation of current Pressure Bandage methods for snakebite
- Australian Snakebite Project
- Top End Prospective Jellyfish Study
- Top End Prospective Snakebite Study
- Prospective evaluation of terrestrial and marine envenoming in humans: clinical effects, predictors of severity, toxicokinetics and potential treatments

### Global Change

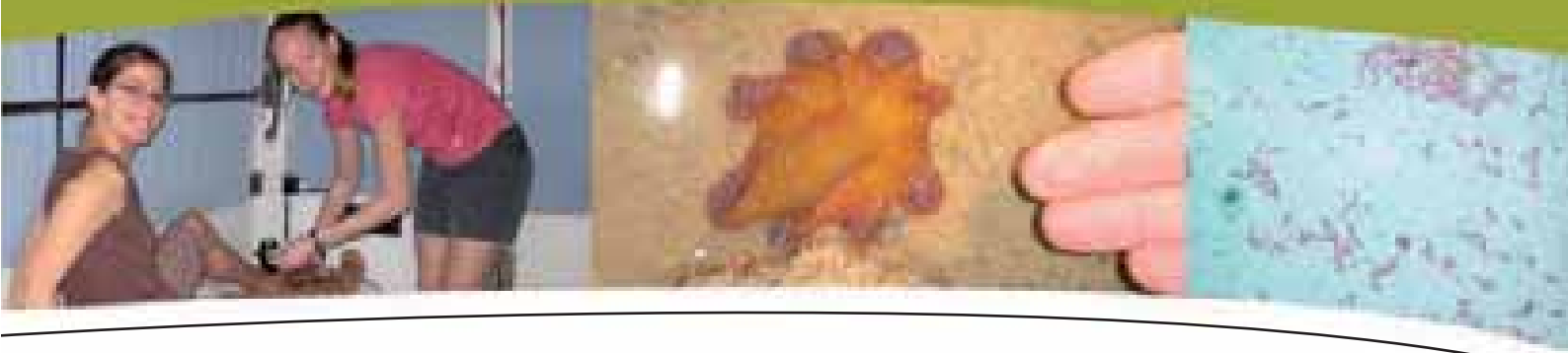
### Adult Respiratory Health

- Selective use of long-term antibiotics for chronic lung obstructive disease in Aboriginal adults

### Melioidosis and Emerging Infections

- Clinical studies of melioidosis in Thailand
- Melioidosis clinical and diagnostic studies in the NT
- Molecular studies of *Burkholderia pseudomallei*
- Presence of the Melioidosis bacterium in bore water in rural Darwin
- Risk assessment for presence of *Burkholderia pseudomallei* in NT waters
- Using real time PCR to detect the ecological niches of Melioidosis bacteria *Burkholderia pseudomallei* in endemic tropical Australia
- High-resolution/Highly sensitive assays for forensic analysis and attribution of bacterial biothreat agents
- Surveillance for emerging infectious disease

# tropical and emerging infectious diseases division



## Research Highlights

- Outcomes from the Australian Snakebite Study have led to changes in the dosing of brown snake antivenom in Australia. This national project collects data from numerous hospitals in Australia.
- Continuation of the project examining the impact of long-term antibiotic use on chronic obstructive pulmonary disease – a significant cause of ill health in the Aboriginal population. The project has enrolled 105 participants in the study from 11 remote Top End communities.
- Completion of data collection for over 1300 patients with *Staphylococcus aureus* (MRSA) at Royal Darwin Hospital (RDH). This work has found more resistant strains of MRSA at RDH and also in Aboriginal communities. This 'community MRSA' is emerging as an epidemic and has been found to cause disease in younger and healthier patients than 'hospital MRSA'.
- Work linking the presence of Melioidosis with bore water in the Darwin rural area continued and confirmed the presence of *B. pseudomallei* in bores during the dry season. Molecular typing has proven the presence of the same strain in the same bore over several years.
- Group A streptococcal and pneumococcal disease are significant infectious diseases in the Top End, particularly in Aboriginal children and child care centres. Work continued using mathematical models of carriage transmission to reduce the burden of diseases such as otitis media, pneumonia and skin sores.
- Further assessment of the treatment of Irukandji syndrome has confirmed the beneficial use of IV magnesium in some treatment cases.
- It was confirmed that many patients presenting to hospital with snake bites are lacking appropriate first aid even when bandaging has been attempted. It was shown that bandages often quickly become loose, even when applied by paramedics. Further work is now required to improve methods for snakebite first aid.
- Molecular diagnosis of 'resistant variants' of Scabies was undertaken and work continued to develop a rapid commercial test to detect human scabies.
- Despite the availability of antifungal treatments, fungal infections such as tinea, remain a significant cause of skin and nail disease in people living in remote Aboriginal communities. Work commenced during 2007 on a project which aims to define and study the molecular epidemiology of the cause of these outbreaks. This will lead to a better understanding of the source of infection, routes of transmission and risk factors for infection.
- Continuation of the laboratory, clinical and epidemiological components of the Healthy Skin Program which is leading to a better understanding of the types of bacteria that cause skin infections in Aboriginal communities and how bacteria and scabies mites develop resistance.

## Awards and Achievements

- Dr Geoff Isbister was listed as one of Australia's Top Young Scientists in Cosmos magazine.
- Annette Douglas was awarded a travel grant to UK and Brazil from the Australian Biosecurity CRC and the Network for Parasitology to undertake research and training relevant to the 'Australian Leishmania Lifecycle Investigation'.
- Mark Mayo presented findings from the 'Melioidosis in bore water' study at the 5th World Melioidosis Congress in Khon Kaen, Thailand and Prof Bart Currie gave an invited plenary talk on the epidemiology of Melioidosis.
- Dr Mirjam Kaestili was awarded a Postdoctoral fellowship by the Novartis foundation. The results from this study were presented at the 5th World Melioidosis Congress in Khon Kaen, Thailand.
- Prof Bart Currie was awarded the prestigious US National Institutes of Health Five Year Grant for Melioidosis.
- Leisha Richardson presented her streptococcal molecular typing work at the 'BacPath9' meeting in Lorne, Vic.
- Dr Stephen Tong was awarded an NHMRC PhD Scholarship to continue studies into MRSA in the Top End.
- Prof Bart Currie was appointed as a Governor of World Wildlife Fund, Australia.

## Publication Highlights

The Division published 41 peer reviewed papers during 2007. Highlights included:

- Cheng AC et al. A randomized controlled trial of granulocyte colony-stimulating factor for the treatment of severe sepsis due to melioidosis in Thailand. *Clin Infect Dis* 2007; 45(3):308-14.
- Walton SF et al. Problems in diagnosing scabies, a global disease in human and animal populations. *Clin Microbiol Rev* 2007; 20(2):268-79.
- McDonald MI et al. The dynamic nature of group A streptococcal epidemiology in tropical communities with high rates of rheumatic heart disease. *Epidemiol Infect* 2007; 1-11.
- Currie BJ et al. Using BOX-PCR to exclude a clonal outbreak of melioidosis. *BMC Infectious Diseases* 2007; 7:68.



# tropical and emerging infectious diseases division

## Research under the Spotlight

### – An Immunodiagnostic Assay for Scabies

Scabies is a worldwide disease, and a major public health problem in many developing countries related primarily to poverty and overcrowding. Scabies is a significant disease of children but occurs in both sexes, at all ages, in all ethnic groups, and at all socioeconomic levels.

Despite the availability of effective chemotherapy, scabies remains a major cause of morbidity in both human and dog populations in remote Northern Territory (NT) Aboriginal communities, relating primarily to levels of poverty and overcrowding.

Scabies is caused by the ectoparasitic mite *Sarcoptes scabiei* burrowing into the host epidermis. Clinical symptoms include intensely itching lesions that often are a precursor to secondary bacterial skin infections, blood poisoning, and kidney disease.

Scabies infestations can mimic many other dermatological skin diseases and current diagnosis via skin scrapings is less than 50% accurate. There is no rapid commercial test to detect human scabies available. Recent developments leading to expression and purification of *S. scabiei* var *hominis* recombinant antigens in *E. coli* have identified molecules with diagnostic potential and ability to differentiate antibody responses between individuals with active scabies from those with past exposure.







## *education and training division*

The Education and Training Division offers a unique range of training and education options which focus primarily on Indigenous and tropical health. The programs attract students locally, nationally and internationally from a range of backgrounds which adds to the multicultural and diverse flavour of the courses on offer.

Areas of expertise include:

- Public health coursework options with a focus on Northern Australia and tropical public health
- Postgraduate research opportunities
- A range of short courses

Students locally, nationally and internationally are attracted to the unique focus on Indigenous and tropical health which Menzies' training and education programs offer. Our programs are taught by active researchers who deliver topical and stimulating content to a diverse range of participants.



*Divisional Head, Dr Kate Senior*



## Education Highlights

### Coursework

- Twenty-two students graduated throughout 2007 across all coursework programs, and 2007 saw steady growth in the public health coursework programs, with 23 new students in semester one and 14 in semester two with a total of 128 students and 168 unit enrolments for the year.
- The first three students undertaking the Professional Doctorate in Public Health completed their coursework requirements, enrolled in the research component and are due to complete their award in early 2009.
- Twenty lecturers participated in the delivery of coursework in 2007 with the support of six visiting lecturers contributing to the activities during the residential weeks.
- In collaboration with the Graduate School of Health Practice, the education and training division developed a new professional doctorate program to commence in 2009. This program is designed to attract senior public health professionals and offer them opportunities to undertake a course of study which is relevant to their careers and experience in the Northern Territory.

### Short Courses

- A range of stimulating and topical short courses were delivered in 2007 which focused on the development of skills for the Indigenous public health workforce – from policy makers to service providers. Five of these short courses offered assessment and credit to students who were enrolled in a postgraduate level award

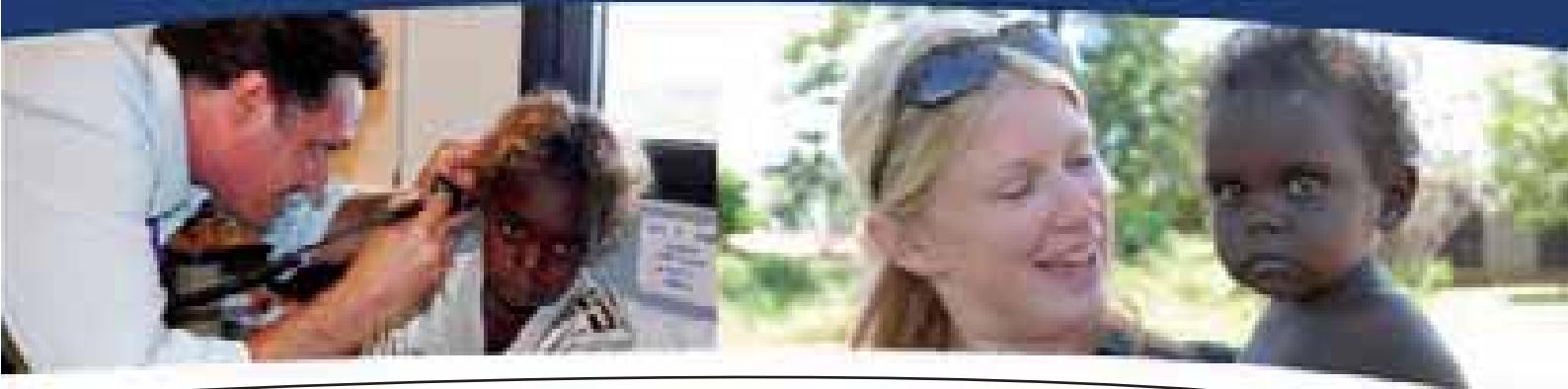
### Research

- During 2007, there were 11 new research students including two International students making a total of 36 students from Honours and Advanced Medical Science to Doctor of Philosophy (PhD) enrolled through five universities.
- There were 11 research graduates in 2007 – seven Doctor of Philosophy (PhD), one Master of Science (MSc), one Master of Philosophy (MPhil), one Advanced Medical Science (AMS) and one Bachelor of Science (Honours).
- Weekly research seminars were held for Menzies students throughout 2007. These gave students the opportunity to present their own research as well as discuss a range of subjects that were relevant to their studies.
- A series of skills workshops were delivered throughout 2007 which focused on enhancing students' writing and their data analysis skills.

### Collaboration

- The education and training division worked closely with the Graduate School of Health Practice during 2007 to develop the generic Professional Doctorate in Health Program.

# education and training division



## What's in store for 2008?

In 2008, we will continue to strengthen the Indigenous content of our courses and develop strategies to involve Indigenous students in postgraduate education. The Education and Training Division has employed two Indigenous lecturers, who will begin in 2008. Both bring with them a wealth of public health experience and the ability to translate this knowledge to a range of audiences. The Education and Training Division will continue the collaboration with the Batchelor Institute of Indigenous Tertiary Education (BIITE) and two residential programs for BIITE students are planned for 2008.

The Education and Training Division has an exciting short course program planned for 2008, with 16 short courses being offered, ranging from a focus on improving Aboriginal child health to the use of videography in public health research.



*Menzies' Coordinator of Indigenous Education, Lee-Anne Mick-Ramsamy with BIITE student George Levi at the BIITE Public Health Coursework Unit.*

## Under the Spotlight – Education and Training Short Course Program

During 2007, the education and training division ran thirteen short courses. These short courses were designed to meet the professional development needs of the public health workforce and to provide an extended range of educational options for Menzies students. Short courses may provide an important first step into postgraduate study. The short course promoting health in Indigenous communities was co-facilitated by Indigenous lecturers and attracted students from very diverse backgrounds, including several Aboriginal Health Workers involved in health promotion activities in remote Aboriginal communities.



## *corporate and research support*

Supporting our research and education Divisions requires expertise in the areas of administration, biostatistics, communications, operations and information technology.



*Divisional Head, Dr John Condon*



## Research Administration and Ethics

During 2007, the Research Admin Team submitted 44 applications to NHMRC – the largest number of NHMRC grants submitted by Menzies in a single calendar year, with 15 (34 per cent being successful). Overall funding success rate for Menzies in 2007 was 33 per cent which is on par with previous years.

The team underwent a review of procedures and information systems to identify gaps and inefficiencies within their work area. Recommendations have been noted and will be addressed once the outcome of an organisation wide review of IT systems is completed.

The Manager of Research Administration, Gabrielle Falls, took six months long-service leave from April to October, allowing her team to develop professionally, thereby improving their knowledge and skills. This included their attendance at the annual Australian Research Management Society conference, held in Adelaide during September 2007.

In October 2007, the team recruited Ms Kalotina Halkitis to prepare for the first round of the Research Quality Framework, scheduled for early 2008.

On a broader level, the Manager accepted an invitation to participate in the NHMRC's External User Reference Group for the development of NHMRC's Research Investment Management and Evaluation System and the team continued to be involved in many organisation-wide activities, including Menzies Seminar Series, the Policy Development Committee and the staff induction workshops.

The Ethics Administration Officer had another busy year, with the number of new submissions increasing to 91 and continuing management of ongoing approvals. There was recruitment and induction of many new members to both the HREC and AESC, as well as a focus on training and raising awareness of ethics issues with Menzies staff and students.

2007 also saw the release of the revised National Statement on Ethical Conduct in Human Research, bringing about changes to consideration of ethical issues in the conduct of research. Members of the HREC attended a Darwin presentation on the roll-out of the revised Statement. The Ethics Administration Officer also attended the bi-annual AHEC Conference, held in Melbourne during October.

## Financial Services

The year was a busy one for Financial Services as the team undertook an accelerated growth phase. The increase in financial transaction volume and project numbers resulted in the valuable addition of an Assistant Accountant. Over the course of the year Financial Services continued to work in close cooperation with other sections of Corporate & Research Support in the streamlining of work processes. The year ended with the departure of long serving Financial Controller Mr David Morgan.

## Human Resources

Human Resources increased its complement of staff to two full time positions during 2007.

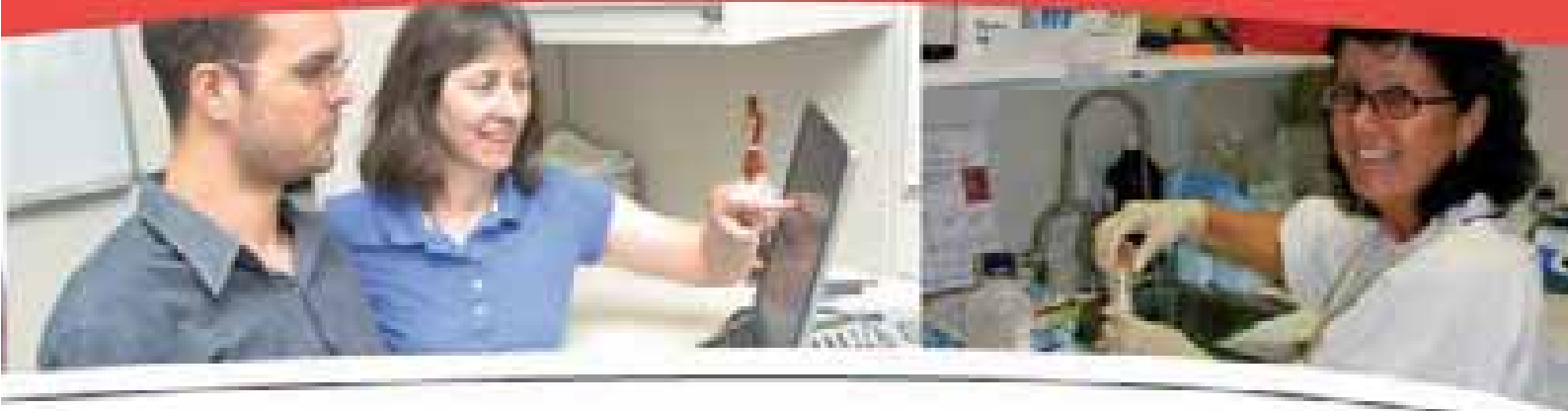
With a 25 per cent increase in full time equivalent staff at Menzies in 2007, our focus was on recruitment in a candidate short market. Much of the recruitment was for the SCARF project which now has staff in seven states and territories.

Menzies flexible working arrangements and generous salary packaging arrangements are attractive to staff and more work was done in this area, such as introducing the Working from Home Policy, and rethinking the wording of job advertisements.

Staff orientation was also a focus. As well as conducting orientation in the first week of a staff member starting work, Menzies introduced its first ever induction for new staff. This was held in November and went for half a day. It was well attended and included interesting presentations from a range of senior staff.



# corporate and research support



## Operations

All areas of the Operations Team have performed well in 2007 under the guidance of Manager Mrs Susan Hutton.

Travel for the organisation continued to grow in line with the growth of the Menzies team and requests for remote and international travel doubled during 2007.

Building renovations were completed to accommodate the ever expanding Menzies team and \$10.5 million was received from the Australian and Northern Territory Governments to fund a significant expansion to the Menzies John Mathews Building. Work is expected to commence in late 2008. In the meantime, and during the construction phase, the Operations team have been tasked with locating off-site accommodation.

## Information Technology

It was a busy year with the appointment of an IT Coordinator and the completion of Menzies new IT Strategic Plan. There were a number of enhancements to the IT environment including new server hardware to replace obsolete equipment, upgraded connectivity to the desktop, upgraded Citrix Server access for remote researchers, a faster high speed link between CDU and Menzies, document management system and storage and an instant messaging pilot.

Early 2008 will see the first wireless network rolled out within Menzies for the use of researchers and staff.

## Biostatistics and Database Management

Menzies is currently conducting more than 40 health-related projects on a wide range of topics, including malaria, melioidosis, otitis media, the associations between child health and housing and the relationship between low birth weight and chronic disease in later life. The biostatistician and database manager are involved in the design and implementation of such studies and are responsible for the maintenance of the database and providing assistance with data input and analysis. Menzies also offers courses in biostatistics and epidemiology within the Public Health coursework program, conducts in-house training (using the statistical package Stata and the database package Access) and works with health professionals working at the Royal Darwin Hospital, CDU and other external agencies.

## Communications

What a year for the Communications and Development unit under the management of both Julie Carmichael and Lisa Stapels (August – December, maternity leave cover).

Menzies the Movie was produced – a three minute DVD presentation which tells the Menzies story to friends new and old. This was filmed in several locations across the NT including Galiwin'ku, Royal Darwin Hospital and Bagot Community Health Centre. Thanks to everyone involved for their support and wonderful contributions.



The Menzies brand received an overhaul during 2007 and a new logo and tag line were developed. The tag line of 'discovery for a healthy tomorrow' truly communicates the spirit in which our research is conducted.

Plans also commenced during the year for the first ever Menzies magazine, fact sheets and a new website. These will be finalised during 2008.

## Fundraising

The fundraising area had a truly amazing year with the development of some wonderful relationships. We welcomed many new friends and supporters to the Menzies mob and plans commenced for some major fundraising events in 2008 including a fundraising art auction, 'Ochre – supporting Indigenous health through art'.

The year saw the establishment of the Rioli Fund for Aboriginal Health with Dean Rioli, ex-Essendon Football Club, as its Chair and Kevin Sheedy as its ambassador.

This coming year is shaping up to be another very exciting one for the unit with staff now located in both Darwin and Melbourne. Plans are afoot to establish a Development Committee as a sub-committee of the Menzies Board and it is hoped that many of the relationships built up over the past 18 months will blossom into support for our research programs.



*corporate and research support*







## Governance

The Menzies School of Health Research operates as an independent body corporate under the control of a Governing Board. Menzies is a controlled entity of Charles Darwin University.

Menzies is required to furnish an annual report and audited financial statements to an Annual General Meeting of the School, with financial results consolidated within those of Charles Darwin University.

Menzies accounts are subject to audit by the Auditor General of the Northern Territory. Menzies also reports to the Northern Territory Legislative Assembly through the Minister for Health and Community Services.



### CHAIRMAN

**Prof Simon Maddocks**  
Chief Scientist, South  
Australian Research and  
Development Institute.



### TREASURER

**Mr Michael Martin OAM**  
Company Director, THEM Ltd  
Partner, MDS Partners.



### DEPUTY CHAIRMAN

**Mr Peter Carew AM**  
Executive Director, Regional  
and Northern Maintenance  
Services Pty Ltd.



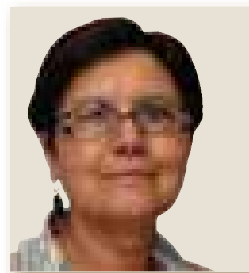
### Prof Jonathan Carapetis

Director, Menzies School  
of Health Research.



**Dr David Ashbridge**

Chief Executive of the Northern Territory Department of Health and Community Services.



**Ms Kate George**

Principal Consultant Claypan Services Pty Ltd and CEO Kariyarra Mugarinya Developments Pty Ltd.

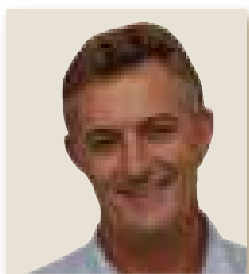


**Ms Ros Bracher AM**



**Prof Shane Houston**

Assistant Secretary, System Performance and Aboriginal Policy Department of Health and Community Services and Adjunct Professor Health Sciences, Curtin University.



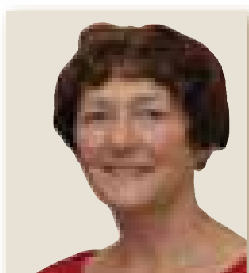
**Mr Ken Davies**

Deputy Chief Executive Officer, Department of Education, Employment and Training, Northern Territory.  
(from April 2007)



**Prof Bob Wasson**

Deputy Vice Chancellor, Research, Charles Darwin University.



**Prof Helen Garnett**

Vice Chancellor, Charles Darwin University.



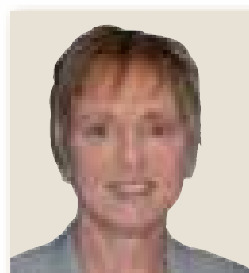
**Mr Robert Wells**

Co-Director of the Menzies Centre for Health Policy and Executive Director of the College of Medicine and Health Sciences at the Australian National University, Canberra.



**Prof Bruce Armstrong AM**

Director of Research, Sydney Cancer Centre & Professor of Public Health and Medical Foundation Fellow The University of Sydney.  
(to May 2007)



**Ms Margaret Banks**

Chief Executive, Department of Employment, Education and Training.  
(to February 2007)



## Observers of the Board

### Secretary to the Board

Mr Brendon Douglas

### CRCAH Chief Executive Officer

Mr Mick Gooda

### Menzies Staff Representative

Ms Melita McKinnon

## Board Committees

The Governing Board was assisted by the following committees.

### Finance Committee

Mrs Sue Bradley  
Prof Jonathan Carapetis  
Mr Peter Carew  
Mr Michael Martin (Chair)  
Mr David Morgan (Secretary – Until December 2007)

### Academic Standing Committee

Prof Bruce Armstrong (until May 2007)  
Prof Jonathan Carapetis  
Prof Terry Dwyer  
Prof Michael Good  
Prof Robyn McDermott (from June 2007)  
Prof Bob Wasson (Chair)

### Research Committee

Prof Bruce Armstrong (until May 2007)  
Prof Ross Bailie  
Prof Jonathan Carapetis  
Prof Bart Currie  
Prof Bob Wasson

### Human Research Ethics Committee

Ms Jenny Abdilla (until June 2007)  
Ms Colleen Atkinson (proxy for Robyn Cooke)  
Ms Robyn Cooke (until June 2007)  
Ms Denise Dickson (since April 2007)  
Dr Deborah Holt  
Dr Celia Kemp (until December 2007)  
Dr Michael Lowe (until June 2007)  
The Very Reverend Dr Michael Nixon (Chair)  
Mr Stewart Potten (until April 2007)  
Mr David Pryce

Ms Maria Scarlett (Secretary)  
Ms Helen Spiers  
Ms Karyl Taylor (since April 2007)  
Dr Steven Tong (since April 2007)  
Major Geneen Wright  
Ms Helen Wodak

### Aboriginal Ethics Subcommittee

Dr Ngiare Brown  
Ms Terry Dunbar  
Ms Joanne Garnggulkpuy (Chair)  
Dr Julie Graham (Scientific Advisor until December 2007)  
Mr Peter Pangquee  
Ms Maria Scarlett (Secretary)  
Ms Diane Walker  
Mr David Woodroffe

### Darwin Regional Institutional Biosafety Committee

Dr Valerie Asche  
Mr Lodi Hoeben  
Mr Michael Howard (from July 2007)  
Mrs Susan Hutton (Chair)  
Mr Neil Ludvigsen (until July 2007)  
Dr Gary Lum (until March 2007)  
Dr Lorna Melville  
Ms Maria Scarlett (Secretary)  
Ms Pamela Trotman  
Dr Shelley Walton

### Laboratory Safety Committee

Ms Jo Bex  
Ms Kim Hare  
Mrs Susan Hutton (Chair)  
Mr Mark Mayo  
Ms Susan Pizzutto (until September 2007)  
Ms Linda Viberg (from September 2007)

## Patrons and Members

### Official Joint Patrons

His Honour Mr Ted Egan AO,  
Administrator of the Northern Territory  
and Ms Nerys Evans (until November 2007)  
His Honour Mr Tom Pauling QC,  
Administrator of the Northern Territory  
(from November 2007)

### Patrons

The Hon Austin Asche AC QC  
Mr Ron Archer AM  
The Hon John Dawkins  
Mr Charles Goode

Dr John Hargrave AO MBE  
Sir Gustav Nossal AC CBE  
Prof Lowitja O'Donoghue CBE AM  
Mr William Scammell CBE

### Menzies Medallion Recipients

Dr Valerie Asche  
Miss Margaret Brewster  
Father Frank Flynn MSC AC\*  
Mr Harry Giese AM MBE\*  
Prof Richard Gye AO  
Dr John Hargrave AO MBE  
Mrs Susan Hutton  
Prof David Kemp FAA  
Prof John Mathews AM  
Mr Ray Norman AM  
Dr Brian Reid  
Dr KS Sriprakash

### Life Members

Dr Keith Fleming  
Dr Ella Stack CBE

\* Deceased

## Honorary Appointees

Dr Ivan BASTIAN	IMVS facilities and expertise in research projects in East Timor and Indonesia	Honorary Senior Research Fellow
Dr Craig BOUTLIS	Infectious diseases: Staphylococcus, malaria and pneumonia	Honorary Senior Research Fellow
Assoc Prof Simon BROWN	Toxinology	Honorary Principal Research Fellow
Dr Alex BROWN	Metabolic and vascular disease research	Honorary Senior Research Fellow
Dr Alan CASS	Research into renal disease in Indigenous populations	Honorary Senior Research Fellow
Dr Allen CHENG	Collaborative research on tropical disease, particularly melioidosis	Honorary Senior Research Fellow
Dr Alan CLOUGH	Substance misuse	Honorary Principal Research Fellow
Ms Samantha COLQUHOUN	International child health and rheumatic heart disease	Honorary Research Officer
Assoc Prof Kate CONIGRAVE	Epidemiology and substance misuse	Honorary Principal Research Fellow
Dr Christine CONNORS	Collaboration on remote area chronic disease	Honorary Research Fellow
Dr Yvonne CUNNINGHAM	Healthy for life and clinical audit protocols	Honorary Research Officer
Assoc Prof Nigel CURTIS	Collaborative research into host factors responsible for rheumatic fever pathogenesis	Honorary Principal Research Fellow
Dr Peter D'ABBS	Collaboration on substance abuse	Honorary Senior Research Fellow
Assoc Prof Mark DANIEL	Collaborative links on community based diabetes project (public health, including chronic disease and epidemiology)	Honorary Senior Research Fellow
Mr Peter EBSWORTH	Collaborative research in international health projects	Honorary Research Fellow
Dr Peter FAGAN	Collaborative research into Streptococci	Honorary Research Fellow
Assoc Prof Russell GRUEN	Population health and epidemiology	Honorary Principal Research Fellow
Prof Wendy HOY	Renal disease in Indigenous populations	Honorary Senior Principal Research Fellow
Dr Matthew JOSE	Collaborative research into renal disease	Honorary Senior Research Fellow
Assoc Prof Paul KELLY	Collaborative research in international health projects	Honorary Principal Research Fellow
Dr Vicki KRAUSE	Collaborative research into infectious diseases	Honorary Principal Research Fellow
Mr Richard LUMB	Mycobacteriology at IMVS and IMVS labs for research in East Timor	Honorary Research Fellow
Dr Dorothy MACKERRAS	Chronic disease collaboration	Honorary Principal Research Fellow
Dr Graeme MAGUIRE	Lung disease collaboration	Honorary Research Fellow
Dr Joao MARTINS	Collaborative research efforts in public health	Honorary Principal Research Fellow
Prof. John MATHEWS	Collaborative research and mentorship	Honorary Senior Principal Research Fellow
Dr Bridie O'REILLY	Public health coursework and teaching	Honorary Principal Research Fellow
Dr Barbara PATERSON	Collaborative research and teaching	Honorary Research Fellow
Dr Ric PRICE	Malaria	Honorary Senior Research Fellow
Dr Barbara PATTERSON	Collaborative research and mentorship	Honorary Principal Research Fellow
Dr Anna RALPH	International TB research	Honorary Research Fellow
Prof Karl RIECKMANN	Collaborative research into tropical disease, particularly malaria	Honorary Senior Principal Research Fellow
Dr Sue SAYERS	Aboriginal Birth Cohort study	Honorary Senior Research Fellow
Dr Sue SKULL	Collaborative research into child health	Honorary Senior Research Fellow
Dr Sri SRIPRAKASH	Streptococci	Honorary Senior Principal Research Fellow
Dr Emiliana TJITRA	Strengthening ties with Indonesia, especially in malaria collaboration	Honorary Senior Research Fellow
Dr Tarun WEERAMANTHRI	Preventable Chronic Disease program in the NT	Honorary Senior Research Fellow
Dr Neville WHITE	Research involving Yolngu people of East Arnhem Land	Honorary Senior Research Fellow
Dr AI YONOVITZ	Audiology	Honorary Research Fellow

## Refereed Journal Articles

- Amornchai P, Chierakul W, Wuthiekanun V, Mahakhunkijcharoen Y, Phetsouvanh R, **Currie BJ**, Newton PN, van Vinh Chau N, Wongratanacheewin S, Day NP, Peacock SJ. Accuracy of *Burkholderia pseudomallei* identification using the API 20NE system and a latex agglutination test. *J Clin Microbiol* 2007; 45(11):3774-6.
- Anderson K, Cass A, **Cunningham J**, Snelling P, Devitt J, Preece C. The use of psychosocial criteria in Australian patient selection guidelines for kidney transplantation. *Soc Sci Med* 2007; 64:2107-14.
- Anstey NM**, Handojo T, Pain M, **Kenangalem E**, Tjitra E, **Price RN**, **Maguire GP**. Lung injury in vivax malaria: Pathophysiological evidence for pulmonary vascular sequestration and posttreatment alveolar-capillary inflammation. *J Infect Dis* 2007; 195:589-96.
- Anstey NM**, Pain MC, **Price RN**, **Maguire GP**. Tumor necrosis factor and increase in alveolar capillary barrier in malaria. *J Infect Dis* 2007; 196(4):647-8.
- Anstey NM**, **Price RN**. Improving case definitions for severe malaria. *PLoS Med* 2007; 4(8):e267.
- Ardian M, Meokbun E, Siburian L, Malonda E, Waramori G, Penttinen P, Lempoy J, **Kenangalem E**, Tjitra E, **Kelly PM**. A public-private partnership for TB control in Timika, Papua Province, Indonesia. *Int J Tuberc Lung Dis* 2007; 11(10):1101-7.
- Bailie R**, Robinson G. Strengthening behavioural interventions for Indigenous health. *J Paediatr Child Health* 2007; 43(4):201-2.
- Bailie R**, Si D, **Dowden M**, **O'Donoghue L**, Connors C, Robinson G, **Cunningham J**, Weeramanthri T. Improving organisational systems for diabetes care in Australian Indigenous communities. *BMC Health Serv Res* 2007; 7(1):67.
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**Cairney S**. Petrol sniffing, the brain, and Aboriginal culture, between sorcery and neuroscience. In: Cohen H, Stemmer B, editors. *Consciousness and Cognition. Fragments of Mind and Brain*. San Diego, California, USA: Elsevier Ltd; 2007. pp. 225-43.

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**Chang AB**, Couzos S. Asthma. In: Couzos S, Murray R, editors. *Aboriginal Primary Health Care: An evidence-based approach*. 3rd Edition ed. Melbourne: Oxford University Press; 2007.

Clapham K, **O'Dea K**, **Chenhall RD**. Interventions and sustainable programs. In:

**Carson B**, Dunbar T, **Chenhall R**, **Bailie R**, editors. *Social Determinants of Indigenous Health*. St Leonards, NSW: Allen & Unwin; 2007. pp. 271-95.

**Gray N**. Human Rights. In: **Carson B**, Dunbar T, **Chenhall R**, **Bailie R**, editors. *Social Determinants of Indigenous Health*. St Leonards, NSW: Allen & Unwin; 2007. pp. 253-70.

Jelinek GA, **Isbister GK**. Spider Bite. In: Cameron PA, editor. *Textbook of Adult Emergency Medicine*. 2nd Edition ed. Edinburgh: Churchill-Livingstone; 2007.

Marchant JM, **Chang AB**. Chronic cough in children. In: Morice AH, Redington AE, editors. *Acute and Chronic Cough*. *Lung Biology in Health Disease*. Marcel Dekker, Inc.; 2007. In press.

**McDonald E**, **Bailie R**. Improving hygiene and children's health in remote Indigenous communities. In: Barraclough S, Gardner H, editors. *Analysing Australian Health Policy: A Problem-Oriented Approach*. Elsevier Australia; 2007. pp. 271-83.

**Paradies Y**. Racism. In: **Carson B**, Dunbar T, **Chenhall R**, **Bailie R**, editors. *Social Determinants of Indigenous Health*. St Leonards, NSW: Allen & Unwin; 2007. pp. 65-86.

**Wayte K**, **Bailie R**, **Gray N**, Henderson G. Framework for Research on Aboriginal Health and the Physical Environment. In: Anderson I, Baum F, Bentley M, editors. *Beyond Bandaid: Exploring the Underlying Social Determinants of Aboriginal Health*. Darwin: Cooperative Research Centre for Aboriginal Health; 2007. pp. 104-35.

## Reports

**Andrews R**, **Kearns T**. *East Arnhem Regional Healthy Skin Project*. Menzies School of Health Research; 2007 Dec 17.

**Bailie RS**, **Si D**, **Dowden M**, **Loneragan K**. *Audit and Best Practice for Chronic Disease - Project Final Report*. Menzies School of Health Research; 2007.

**Ehsani J**, **Bailie R**. *Feasibility and Costs of Water Fluoridation in Top End Remote Aboriginal Communities - Final Report*. Darwin: Menzies School of Health Research; 2007.

**Ehsani J**, **Bailie R**. *Feasibility and Costs of Water Fluoridation in Top End Remote Aboriginal Communities - Final Project Report & Policy Recommendations*. Darwin: Menzies School of Health Research; 2007.

## Invited Conference Proceedings

**Bailie RS**. Audit and Best Practice in Chronic Disease Extension project. Statewide Diabetes Clinical Network Forum, Herston, Brisbane, 20 July, 2007.

**Bailie RS**. Audit and Best Practice in Chronic Disease Extension Project. Presentation to the Queensland Health Diabetes Network Forum. Brisbane, July 2007.

**Bailie RS**, Tilmouth R, Torzillo P. Better Health through Better Housing - Fact or Fiction? Which Way? - Directions in Indigenous Housing. A national conference shaping the future of housing for Indigenous communities, The Royal Australian Institute of Architects, Alice Springs NT, 26-27 October 2007.

**Chenhall R**. Challenges of conducting cross-cultural research with mutual help groups, Roundtable with Tomofumi Oka and Thomasina Borkman, *Social for Community Research and Action 11th Biennial Conference*, Los Angeles, US. 9 June, 2007.

**Chenhall R**. From fieldnotes to ethnography: Anthropological research in an Australian Aboriginal alcohol and drug residential treatment centre" "From fieldnotes to ethnography: Anthropological research in an Australian Aboriginal alcohol and drug residential treatment centre, Graduate School of Medicine, Division of Health Sciences, Osaka University. 14 May 2007.

**Chenhall R**. Psychotherapy with Indigenous Australians: Group work in a residential alcohol and drug treatment setting, JSTP-WPATPS-WACP joint meeting, *The New Era of Transcultural Psychiatry: Advancing Collaboration of East and West*, Kamakura, Japan. 27-29 April 2007.

**Price R**. Vivax Malaria: neglected and not benign. Gordon Conference on Malaria, Oxford. 9-13 September 2007.

**Price R**. Assessment of Clinical Efficacy of Antimalarial Drugs. Symposia: World Antimalarial Resistance Network: Steps to Implementation. American Society of Tropical Medicine 56th Annual meeting, Philadelphia, USA. 6 November 2007.

**Mounsey, K.E**. What's getting under your skin? Medical research to improve skin health in remote Aboriginal communities in northern Australia. Clinical Research Seminar Series, Liverpool School of Tropical Medicine and Hygiene, Liverpool, UK. April 2007.

**Thomas D**. Social determinants of health. Preventable chronic disease workshop, NT Department of Health & Community Services, Darwin, 12 February 2007.

**Thomas D**. Social determinants of Aboriginal smoking and quitting. Invited keynote address. NSW Tobacco network, NSW Health, Sydney, 23 February 2007.

**Thomas D**. What do we know about how Aboriginal people use EDs? (Invited keynote) Spring Seminar on Emergency Medicine, Alice Springs, 5 October 2007.



- Thomas D.** Demographics and contribution of smoking to CSLD and other lung diseases. (Invited keynote) Chronic Suppurative Lung Disease in Indigenous children and adults Update workshop. Darwin, 23 November 2007.
- Thomas D.** Reducing smoking and ETS in the Indigenous population. (Invited keynote) Chronic Suppurative Lung Disease in Indigenous children and adults Update workshop. Darwin, 23 November 2007.
- Chang A.** 'Differential Diagnosis of Asthma' and 'Managing Cough in Children' World Asthma Meeting. Turkey, 2007.
- Chang A.** An update on Paediatric Respiratory Diseases. 'When to investigate a chronic cough' and 'Non-CF Bronchiectasis'. Hong Kong, Apr 2007.
- Chang A.** Cough in children. 4th International Symposium on Respiratory Diseases. Shanghai, Nov 2007.
- Chang A.** Indigenous Respiratory Health in Australia. Indigenous health Symposium: Annual Scientific Conference, TSANZ. Auckland, 2007.
- Johnston, V.** The health impact of Australian asylum policies for Iraqi temporary protection visa (TPV) holders in Melbourne. Detention Health Advisory Group (DeHAG), advising to the Commonwealth Department of Immigration and Citizenship. Darwin, 13 July, 2007.
- Woodberry T.** ARC/NHMRC Network for Parasitology. Northern Australia Malaria Symposium. Mt Cootha, Brisbane, October 2007.
- Leach AJ:** Vaccine Research in the Northern Territory. BioIndustry Forum. Darwin, 2007.
- Leach AJ:** Experiences as a co-Director of ISPPD5. The value of Business Events to Local Businesses. 2007.
- Boyle J.** Polycystic Ovary Syndrome and Metabolic Health in Indigenous Women. RANZCOG ASM 2007: Dame Ella MacKnight Memorial Lecture. Gold Coast, October 2007.
- Andrews R,** Moberley SA, Dunbar M, Neave J, Wigger C, McKinnon M, Leach A, Morris P, Carapetis J, Mulholland K. PneuMum: A Randomized Controlled Pneumococcal Vaccine Trial in Indigenous Pregnant Women in the Northern Territory of Australia. National Foundation for Infectious Diseases 10th Annual Conference on Vaccine Research. Baltimore, USA, 30 April – 2 May 2007.
- Moberley S,** Holden J, Tatham D, **Andrews R.** A Systematic Review of the Effectiveness of Pneumococcal Polysaccharide Vaccines in Adults. National Foundation for Infectious Diseases 10th Annual Conference on Vaccine Research. Baltimore, USA. 30 April – 2 May 2007.
- McDonald M,** **Towers R,** **Andrews R,** **Benger N,** **Fagan P,** **Currie B,** **Carapetis J.** The dynamic nature of group A streptococcal epidemiology in tropical communities with high rates of rheumatic heart disease. Communicable Diseases Control Conference 2007. Canberra, 14–15 March, 2007.
- Carapetis J R.** Diagnosis and treatment of invasive group A streptococcal infections. European Society for Paediatric Infectious Diseases. Portugal, May 2007.
- Carapetis J R.** GAS Vaccines. Indigenous Immunisation Workshop. Darwin, August 2007.
- Carapetis J R.** Rheumatic heart disease, the continuing epidemic. European Society of Cardiology Congress. Vienna, September 2007.
- Carapetis J R.** Oral Health Research and the NT. ACPOH, Adelaide, October 2007.
- Carapetis J R.** Global burden of group A streptococcal disease, and progress in vaccine development. Bill & Melinda Gates Keystone Symposia on Vaccines for the Developing World. Capetown, October 2007.
- Carapetis J R.** Update of new vaccines for adult respiratory disease in childhood and relevance to CSLD. CSLD in Indigenous Children & Adults Symposium. Darwin, November 2007.
- Carapetis J R.** New approaches to Aboriginal child health. UMMS Annual Lecture. Melbourne, November 2007.
- Nagel T, Thompson C, Cusack J.** Aboriginal Mental Health Care Plan Training workshop. Preventable Chronic Disease Workshop. Darwin, February 2007.
- Nagel T, Thompson C.** Aboriginal Mental Health Care Plan Training workshop. Clifford Beers Conference – Rekindling the Flame. Perth, February 2007.
- Nagel T, Thompson C, Cusack J.** Aboriginal Mental Health Care Plan Training workshop. Mental Health Education Workshop. Emu Point outstation, NT, April 2007.
- Nagel T, Thompson C.** Aboriginal Mental Health Care Plan Training workshop. Diabetes Educators workshop, ADEA, NT Branch. Darwin, April 2007.
- Nagel T, Thompson C.** Aboriginal Mental Health Care Plan Training workshop. Centre for Remote Health/ Congress. Alice Springs, April 2007.
- Nagel T, Thompson C, Cusack J.** AIMHI NT. TEDGP – AMHW Program Workshop. Darwin, May 2007.
- Thompson C, Mulholland D.** Aboriginal Mental Health Care Plan Training workshop. Chronic Disease Workshop. Katherine, June 2007.
- Nagel T, Thompson C, Mulholland D, Cusack J.** Yarning About Mental Health Workshop. Uniting Church Family and Carer Mental Health Program. Sydney, July 2007.
- Nagel T, Thompson C, Mulholland D, Cusack J.** Yarning About Mental Health Workshop. Mental Health Community Care Family Carer Mental Health Program. Sydney, July 2007.
- Nagel T, Thompson C, Mulholland D, Cusack J.** Yarning About Mental Health Workshop. Life Line Family and Carer Mental Health Program. Sydney, July 2007.
- Nagel T, Thompson C, Cusack J.** Yarning About Mental Health Workshop. Maternal and Child Health Nurses Workshop. Darwin, July 2007.
- Nagel T, Thompson C, Mulholland D.** Aboriginal Mental Health Care Plan Training workshop. Institute of Mental Health Services Workshop. Townsville, July 2007.

**Nagel T.** Yarning About Mental Health. Presentation in the Aboriginal Social and Emotional Well-being subject as part of the Masters of Psychiatry / Masters of Psychiatric Medicine Program. Melbourne, July 2007.

**Nagel T, Mulholland D.** Substance Abuse – Detriments to Quality of Life. Garma Festival 2007.

Key Forum – Indigenous Health: Real Solutions for a Chronic Problem. Nhulunbuy, NT, August 2007.

**Nagel T, Mulholland D.** Motivating through Goal Setting. 11th Annual Chronic Disease Network Conference “Learning for Living”. Darwin, August 2007.

**Nagel T, Thompson C.** Dual Diagnosis and Indigenous mental health. Anex Illegal Drugs and Mental Health Conference. Melbourne, September 2007.

**Nagel T, Thompson C.** Aboriginal Mental Health Care Plan Training workshop. Sunrise General Practitioners Workshop. Katherine, October 2007.

**Nagel T, Mulholland D.** Indigenous Mental Health Assessment. 2007 Aboriginal mental health Workers Forum. Sydney, October 2007.

**Nagel T, Thompson C, Mulholland D.** Aboriginal Mental Health Care Plan Training workshop. Central Australian Mental Health Service. Alice Springs, November 2007.

**O’Grady K, Chang A, Torzillo P, Bauert P, Wheaton G, Morris P, Mackenzie G, DeCampo M, DeCampo J, Ruben A.** The burden of hospitalised, radiologically diagnosed pneumonia in Indigenous

children. Australian Academy of Science Foundation Open Day. Canberra, October 2007.

**O’Grady K, Chang A, Torzillo P, Bauert P, Wheaton G, Morris P, Mackenzie G, DeCampo M, DeCampo J Ruben A.** Radiologically diagnosed pneumonia in Indigenous children in the Northern Territory. Communicable Diseases Network Australia Annual Conference. Canberra, March 2007.

**Anstey N.** “Reducing mortality from severe malaria: collaborative studies in Eastern Indonesia”. Australia-Indonesia Medical Research Initiative Malaria Symposium. Jakarta, 2007.

**Anstey N.** Invited co-convenor of the Keystone Malaria Meeting, “Malaria: Immunology, Pathogenesis and Vaccine Perspectives”. Austria, June 2008.

**Anstey N.** Invited member, Organising Committee, Molecular Approaches to Malaria meeting. Lorne 2008.

**Dingwall K, Berkhout N, Cairney S.** Culturally appropriate assessment of cognitive function in Indigenous Australians following volatile substance and alcohol abuse. Two Nations, Ten cultures?: The Combined APSAD and Cutting Edge Addiction Conference. Auckland, New Zealand, November 2007.

**Boyle J.** Fertility in Australian Indigenous Women. Fertility Society of Australia ASM Hobart, September 2007.

**Morris P S.** Challenges of Clinical Research Trials in Special Populations. 3rd International Clinical Trials Symposium, Sydney, Sept 2007.

**McCallum G.** Diagnosing Otitis Media, Alan Walker Child Health Workshop, Menzies School of Health Research. Darwin, August 2007.

**McCallum G.** Diagnosing Otitis Media, Katherine West Health Board – inservice training, Teleconference. October 2007.

**Currie B.** Climate change and infectious diseases in the tropical north. An inconvenient Truth in the Northern Territory. Charles Darwin University Education Series. Darwin, June 2007.

**Currie B.** Research Australia Thank you Day – Healthy Planet, Healthy People – “Global climate change isn’t all we should be concerned about...”

Menzies School of Health Research. Darwin, November 2007.

**Currie B.** 19th Annual Kimberley Medical Conference, Broome, WA November 2007.

**Currie B.** Reality or hot air, predictions for infectious diseases in tropical Australia. Centre for Disease Control Conference. Darwin, October 2007.

**Currie B.** invited to be on the International Advisory Committee of the 5th World Melioidosis Congress. Khon Kaen, Thailand, November 2007.

**Price R.** Informal consultation on containment of multidrug resistant malaria on the Cambodian-Thailand border. WHO Rapporteur, Phnom Penh, Cambodia, January 2007.

**Price R.** Informal consultation on Methods and Techniques for Clinical Trials on Antimalarial Drug Efficacy: Genotyping to identify parasite populations. MMV and TDR. Amsterdam, 29-30 May 2007.

## Research Funding

Funding Body	Chief Investigators	Grant Type
AusAID	CARAPETIS Jonathan; DOUGLAS Brendon	Fellowship
Australian Academy of Science	BAR-ZEEV Naor	Scholarship
Australian Academy of Science	BOYLE Jacqueline	Scholarship
Australian Biosecurity CRC for Emerging Infectious Disease	WALTON Shelley; DOUGALL Annette	Scholarship
Australian Biosecurity CRC for Emerging Infectious Disease	WALTON Shelley; DOUGALL Annette	Scholarship
Australian Primary Health Care Research Institute	MCDONALD Elizabeth	Fellowship – Stream 7
Australian Research Alliance for Children & Youth	CARAPETIS Jonathan	Project
Channel 7 Children’s Research Foundation of SA	LEACH Amanda	Project
Channel 7 Children’s Research Foundation of SA	SINGH Gurmeet	Project
Channel 7 Children’s Research Foundation of SA	WALTON Shelley	Project
Cooperative Research Centre for Aboriginal Health	ANDREWS Ross; WALTON Shelley; STIRLING Janelle; CONNORS Christine	Project
Cooperative Research Centre for Aboriginal Health	BAILIE Ross	Project
Cooperative Research Centre for Aboriginal Health	BAILIE Ross; CONNORS Christine; BROWN Alex; CONDON John; JONES Jocelyn; LEWIS Jennifer; ACKLIN Fay; WAKERMAN John; WILSON John; O’DONOHUE Lyn; HALPIN Stephen	Project
Cooperative Research Centre for Aboriginal Health	NAGEL Tricia; KAVANAGH David	Project
Cooperative Research Centre for Aboriginal Health	THOMAS David	Project
Dept of Corporate and Information Services	CONIGRAVE Katherine	Tender
Dept of Employment and Workplace Relations	GRIFFITHS Kalinda	Cadetship
Dept of Health and Ageing	BAILIE Ross	Project
Dept of Health and Ageing	CAIRNEY Sheree; FITZ Joe	Resource Development
Dept of Health and Ageing	CONDON John; CLARK Louise	Building Healthy Communities in Remote Australia
Dept of Health and Ageing	AL-YAMAN Fadwa; BAILIE Ross; CONDON John; JONES Jocelyn; SHIBASAKI Sanchia; SIBTHORPE Beverley; BEATTY Zoe; HALL Sam; HALLIDAY Bianca	Tender
Diabetes Australia Research Trust	MAPLE-BROWN Louise	Project
Financial Markets Foundation for Children	BROWN Ngiare; JOHNSTON Vanessa; WINCH Scott	Project
Harold Mitchell Foundation	NAGEL Tricia	Resource Development
Ian Potter Foundation	CARAPETIS Jonathan	Project
Ian Potter Foundation	DOUGLAS Brendon	Fellowship
Kidney Health Australia	LAWTON Paul; MAPLE-BROWN Louise	Medical Research Funding Program
Menzies Foundation	CARAPETIS Jonathan; DOUGLAS Brendon	Strategic Research
National Centre in HIV Epidemiology & Clinical Research	RUMBOLD Alice	Research Position
National Health & Medical Research Council	ANSTEY Nicholas	Travel
National Heart Foundation	BAILIE Ross; MCDONALD Malcolm; DOWDEN Michelle; CLEMENS Tom; KEARNS Therese; CARAPETIS Jonathan	Project
National Heart Foundation (via Australian Paediatric Surveillance Unit)	CARAPETIS Jonathan	Program
National Heart Foundation	SAYERS Sue; MACKERRAS Dorothy; SINGH Gurmeet	Project
National Heart Foundation	TOWERS Rebecca; FAGAN Peter; CURRIE Bart; CARAPETIS Jonathan	Project
National Heart Foundation	TOWERS Rebecca	Conference Travel

# research funding

Title	Year From	Year To	Awarded \$
Strengthening Public Health Research and Training Capacities in Timor Leste	01-03-07	01-06-08	46,354
Vaccination strategies to reduce ear disease in Aboriginal and Torres Strait Islander children in the Northern Territory.	01-01-07	31-12-07	7,000
Polycystic ovary syndrome, reproductive health and metabolic abnormalities in Indigenous women in the Northern Territory	21-06-06	31-12-07	10,500
Australian Leishmania lifecycle investigation	03-07-06	02-07-09	105,000
Australian Biosecurity CRC Student Placement Scholarship	15-06-07	31-07-07	4,000
Towards improving child health in disadvantaged communities	01-10-07	31-12-07	39,949
"School Readiness" in Indigenous children - bringing together the health and education research agendas	01-08-07	31-01-08	28,638
Implications of nonencapsulated <i>Streptococcus pneumoniae</i> carriage for maintenance of antibiotic resistance genes and the efficacy of pneumococcal conjugate vaccine (Prevenar) for pneumococcal disease	01-01-07	31-12-07	42,000
Prevalence of iodine deficiency in NT Aboriginals of reproductive age	01-01-07	31-12-07	27,000
An immunodiagnostic assay for scabies	01-01-07	31-12-07	45,000
Filling the Gaps in the Healthy Skin Program: Additional laboratory, clinical and epidemiological components	01-10-05	30-09-08	722,000
A structured systems approach to improving health promotion practice for chronic disease in Indigenous communities	1-03-07	31-03-10	696,980
Audit and Best Practice for Chronic Disease Extension	01-01-05	31-12-09	897,900
Australian Integrated Mental Health Initiative - NT	01-06-03	31-12-09	225,420
Monitoring and Evaluating Aboriginal Tobacco Control	19-02-07	18-02-09	240,028
Groote Eylandt - Consultancy - Evaluation of Groote Eylandt Alcohol Management System	01-01-07	31-12-07	38,827
National Indigenous Cadetship Project	25-07-05	19-09-08	35,000
Audit and Best Practice Chronic Disease Extension	01-07-05	31-12-08	400,000
Development and production of petrol sniffing flipcharts for men and women	01-07-06	01-03-07	28,435
Yolngu Life : Yolnguy Walngakum. Building Healthy Communities - Phase 3	31-10-06	30-06-08	284,059
The Healthy for Life Support, Collection, Analysis and Reporting Function	30-03-07	31-12-09	6,169,572
A randomised trial of rosiglitazone versus metformin monotherapy in Aborigines with Type 2 Diabetes: effects on metabolic and cardiovascular parameters	01-01-07	31-12-07	50,000
Evaluation of the role and function of an Indigenous Reference Group (IRG) as a model for conducting research involving Indigenous children in the Northern Territory	31-12-07	31-12-08	44,000
Australian integrated mental health initiative in the Northern Territory (AIMHI NT) DVD Training and education resources	01-08-07	31-07-08	23,000
Evaluation and integration of regional healthy skin programs to reduce chronic diseases	17-13-04	01-09-07	500,000
The Ian Potter Foundation Indigenous Research Fellowship	01-01-07	31-12-11	192,000
Validating estimates of glomerular filtration rate (GFR) in Aboriginal and Torres Strait Islander Australians	01-08-07	30-06-08	50,000
Strengthening Indigenous health research capacities	01-12-06	31-05-07	50,000
STI Research & Evaluation	29-11-07	29-11-08	80,000
Global Forum Health Research Wellcome Trust Forum	01-10-07	30-11-07	2,500
Proposal for integrating the principles of the National Guidelines for Rheumatic Fever and Rheumatic Heart Disease into the Audit and Best Practice for Chronic Disease (ABCD) programme	12-12-07	12-12-09	75,000
Rheumatic Fever Surveillance	01-10-07	30-09-08	58,000
Cardiovascular risk factors in Aboriginal Birth Cohort adolescents	20-09-05	30-09-07	119,954
Investigation of human heart antigens identified by screening a cDNA library using ARF sera	01-01-07	30-06-09	30,000
BacPath9 "Molecular Biology of Bacterial Pathogens"	23-09-07	26-09-07	1,000

Funding Body	Chief Investigators	Grant Type
National Institutes of Health (Shared grant with QIMR)	GOOD Michael; CARAPETIS Jonathan; MULHOLLAND EK; BATZLOFF M; HOYER W; McLEAN A; OLIVE C; SRIPRAKASH KS; TOTH I	Project
National Institutes of Health (shared grant with Duke University)	ANSTEY Nicholas; TJITRA Emiliana; WEINBERG J Brice	Project
National Rural Health Alliance Inc	BRIMBLECOMBE Julie	Project
NHMR 236230	STEVENS Matthew	Scholarship
NHMRC – AHMAC	BAILIE Ross; WEERAMANTHRI Tarun; CONNORS Christine; CUNNINGHAM Joan; ROBINSON Gary	Priority Driven Research
NHMRC 219327 (shared grant with UQ)	KAVANAGH David; HUNTER Ernest; DEANE Frank; DEL MAR Christopher; NAGEL Tricia; OAKLEY BROWNE; OADES Lindsay; BARTLETT Helen; MARTIN Graham	Mental Health Research Partnerships
NHMRC 236204 (shared grant with The George Institute)	CASS Alan; CUNNINGHAM Joan; DEVITT Jeannie; SNELLING Paul; HORVATH J; ERIS Josette	Project
NHMRC 236212	ANSTEY Nicholas	Practitioner Fellowship
NHMRC 236228	KOWAL Emma	Scholarship
NHMRC 236235	CUNNINGHAM Joan; ANDERSON Ian; BAILIE Ross; LEWIS Jennifer; BARNES Anthony	Capacity Building
NHMRC 264582 (Shared grant with UMelb)	NOLAN Terry; CARAPETIS Jonathan; BUTTERY J; JOHNSTON L.; SAWYER S; MULHOLLAND EK; CURTIS N; OBERKLAID F	CCRE
NHMRC 283303	BAILIE Ross	Fellowship
NHMRC 283310	CUNNINGHAM Joan	Career Development
NHMRC 283312	LEACH Amanda	Career Development
NHMRC 283321	ANSTEY Nicholas; TJITRA Emiliana	International Collaborative Research Grants Scheme
NHMRC 283325	CAIRNEY Sheree	Training Fellowship
NHMRC 283327	SMITH-VAUGHAN Heidi	Training Fellowship
NHMRC 283335	NAGEL Tricia	Scholarship
NHMRC 283336	LLOYD Jane	Scholarship
NHMRC 290208 (Shared grant with QIMR)	KEMP David; GOOD Michael; SRIPRAKASH Kadaba; TOTH Istvan; ENGWERDA Christian; ANSTEY Nicholas	Program
NHMRC 301038	CHANG Anne	Practitioner Fellowship
NHMRC 320858	MORRIS Peter; SLADE Gary; ROBERTS-THOMSON Kaye; LEACH Amanda; BAILIE Ross	Project
NHMRC 320860 (Shared grant with University of Melbourne)	O'DEA Kerin; HOY Wendy; ROWLEY Kevin; BEST James; WANG Zhiqiang	Program
NHMRC 320869	ISBISTER Geoffrey	Career Development
NHMRC 323248	CHENHALL Richard	Training Fellowship
NHMRC 333416	BURGESS Paul	Scholarship
NHMRC 333417	JOHNSTON Fay	Scholarship
NHMRC 333420	ESLER Danielle; JOHNSTON Fay; THOMAS David; CONNORS Christine; NAGEL Tricia	General Practice Clinical Research Program
NHMRC 333421	BURGESS Paul; JOHNSTON Fay; CONNORS Christine; MCDERMOTT Robyn; ROBINSON Gary; BAILIE Ross	General Practice Clinical Research Program
NHMRC 350499	ANDREWS Ross; CARAPETIS Jonathan; LEACH Amanda; MORRIS Peter; MULHOLLAND Edward	Project
NHMRC 383500	GUNTHORPE Wendy; SAYERS Sue; CAIRNEY Sheree; PARADIES Yin	Project
NHMRC 383504	CURRIE Bart; CHENG Allen; SPRATT Brian; MAYO Mark; NORTON Rob	Project
NHMRC 383507	CAIRNEY Sheree; MARUFF Paul; CLOUGH Alan; TORZILLO Paul; CURRIE Bart	Project
NHMRC 383511	WALTON Shelley	Career Development
NHMRC 383515	BOYLE Jacqueline	Scholarship
NHMRC 389837 (Shared grant with QIMR)	MORRIS Peter; VALERY Patricia; CHANG Anne; GRIMWOOD Keith; SINGLETON Rosalyn; TORZILLO Paul	Project

Title	Year From	Year To	Awarded \$
Global GAS vaccine based on the M-Protein	15-09-04	31-08-09	6,617,764.00
Nitric oxide and severe malaria (II)	01-09-03	31-08-08	1,600,000
Remote Indigenous Stores Project	05-02-07	14-09-07	78,800
Socio-economic and Environmental Determinants of Health in Indigenous Communities in the Northern Territory	01-01-03	31-07-07	73,228
Community health centre organisation and quality of care for the prevention and management of chronic disease (ABCD)	01-01-02	30-03-07	458,500
Evaluation of an integrated strategy to promote the health of people with chronic or recurring mental disorders	01-01-05	31-12-07	117,859.46
IMPAKT: Improving Indigenous Australians' access to kidney transplantation	01-01-03	31-12-07	426,750
Pathophysiology and treatment of malaria and other tropical infectious diseases in our region	01-01-03	31-12-07	447,125
Assessing change in public health research: an ethnography of an Indigenous public health research institution	03-02-03	03-03-07	91,082.69
Building capacity in policy relevant, quantitative, social analysis and research in Indigenous health	01-01-04	31-12-08	2,437,000
Centre for Clinical Research Excellence in Childhood and Adolescent Immunisation	01-01-07	31-12-07	2,000,000
Fellowship in Indigenous Environmental Health and Health Services Research	01-01-04	31-12-08	571,250
Social and system determinants of Indigenous health	01-01-04	31-12-08	467,500
Reducing the burden of infectious disease in young Aboriginal children - an evidence-based, multidisciplinary approach	01-03-04	28-02-09	426,250
Research and training to reduce morbidity and mortality from malaria in Papua (Indonesia) and Papua New Guinea	01-01-04	31-12-08	1,649,830
The development of culturally-appropriate cognitive assessments with applications in substance abuse and mental health with Indigenous clients	01-07-04	30-06-08	259,000
Applying molecular public health in Indigenous communities: Linking research to outcomes	01-01-04	31-12-08	129,500
Development of a relapse prevention protocol for Indigenous people with chronic mental illness in remote communities	01-01-04	30-06-07	103,725
Designing and trialing health interventions with an urban Indigenous population	01-01-04	30-06-07	61,452
Tropical Infectious Diseases - Pathogenesis and Vaccine Research	01-01-04	31-12-08	8,853,837
Aspiration lung disease and chronic cough in children - Novel and objective techniques	01-01-04	31-12-08	372,750
Development and evaluation of a primary health care model to prevent dental decay in Aboriginal pre-school children	01-01-05	31-12-08	1,585,800
Health Outcomes Monitoring and Evaluation : Learning about Activity, Nutrition, Diet and Social factors (HOMELANDS)	01-01-05	31-12-09	7,070,585
Prospective evaluation of terrestrial and marine envenoming in humans: clinical effects, predictors of severity, toxicokinetics and potential treatments	01-01-05	31-12-09	486,250
Best practice guidelines for evaluating Indigenous residential alcohol and drug programs	01-07-05	30-06-10	264,000
Healthy Land : Healthy People : Exploring the health benefits of Aboriginal natural resource management in northern Australia	06-06-05	30-03-08	60,028
Health effects of bushfire smoke in the Australian monsoon tropics	01-01-05	30-06-07	75,286
Sadness and Heart Disease	01-01-06	01-03-07	29,650
Implementing the Aboriginal and Torres Strait Islander Adult Health Check. Improving early detection and evaluating innovative prevention activities in remote areas	01-04-06	31-10-08	229,875
Immunising Aboriginal mothers with pneumococcal polysaccharide vaccine to prevent infant ear disease and carriage	01-01-05	31-12-07	1,111,370
Strong Souls Study	01-01-06	31-12-08	189,875
Continuation of the Darwin Prospective Melioidosis Study	01-01-06	31-12-08	437,750
Neurocognitive and social changes associated with unleaded petrol sniffing and abstinence from further sniffing	01-01-06	31-12-08	625,000
Strategies to Improve the Diagnosis, Prevention, Treatment and Control of Scabies	01-01-06	31-12-10	436,250
Polycystic ovary syndrome, reproductive health and metabolic abnormalities in Indigenous women in the Northern Territory	01-01-06	31-12-08	91,800
MULTICENTRE BRONCHIECTASIS STUDY: A collaborative and international study of bronchiectasis in Indigenous children	01-01-06	31-12-10	1,444,500

Funding Body	Chief Investigators	Grant Type
NHMRC 436006	WALTON Shelley; CURRIE Bart	Project
NHMRC 436009	CHENG Allen; MATHEWS John; LEACH Amanda; CARAPETIS Jonathan; CURRIE Bart	Project
NHMRC 436011	SINGH Gurmeet; MACKERRAS Dorothy	Project
NHMRC 436013	CONDON John; RUMBOLD Alice; GARLAND Suzanne; STANKOVICH Jim; BROWN Ngjare	Project
NHMRC 436023	MORRIS Peter; LEACH Amanda; SMITH-VAUGHAN Heidi; CHANG Anne; VALERY Patricia; TORZILLO Paul	Project
NHMRC 436031	DAVIS Joshua	Scholarship
NHMRC 436032	SNELLING Thomas	Scholarship
NHMRC 436033	TONG Steven	Scholarship
NHMRC 436034	TOWERS Rebecca	Training Fellowship
NHMRC 436039	BAR-ZEEV Naor	Scholarship
NHMRC 436041	DINGWALL Kylie	Scholarship
NHMRC 437008	ANDREWS Ross	Training Fellowship
NHMRC 467217	FALLS Gabrielle	Equipment
NHMRC 496635 (Shared grant with QIMR)	McCARTHY James; WALTON Shelley; PASAY Cielo; HOLT Deborah	Project
Northern Territory Government	CARAPETIS Jonathan	Fellowship
Northern Territory Government (NTRIB)	BAR-ZEEV Naor; CARAPETIS Jonathan; ANDREWS Ross; CHANG Anne; NISSEN Michael; KRAUSE Vicki; GUTHRIDGE Steve	Project
Northern Territory Government (NTRIB)	SAYERS Sue; MACKERRAS Dorothy; SINGH Gurmeet; GUNTHORPE Wendy	Project
NT DHCS	ANDREWS Ross	Project
NT DHCS	ANDREWS Ross	Project
NT DHCS	NAGEL Tricia	Knowledge Transfer
NT DHCS RFT 259/0405	BAILIE Ross; DOWDEN Michelle; O'DONOHUE Lyn; MCCARTHY Leisa; MCDONALD Elizabeth	Tender
NT Government (Shared grant with Amity)	NAGEL Tricia	
OATSIH	CARAPETIS Jonathan	Project
OATSIH	CARAPETIS Jonathan; JOHNSTON Vanessa; LEA Tess; ROBINSON Gary	Project
OATSIH	CARAPETIS Jonathan; MCDONALD Malcolm; CURRIE Bart; ILTON Marcus; MAGUIRE Graeme	Project
OATSIH	MAGUIRE Graeme	Project
Queensland Government (Shared Grant with QIMR)	McCARTHY James; WALTON Shelley; PASAY Cielo; HOLT Deborah	Project
Royal Australasian College of Physicians	MAGUIRE Graeme	Project
Royal College of Nursing Australia	THOMPSON Carolyn	Scholarship
Sidney Myer Fund	ANDREWS Ross	Project
Trust Company Limited	SMITH-VAUGHAN Heidi	Project
Tudor Foundation	ANSTEY Nicholas; KEMP David	Donation
US Department of the Interior (Shared grant with Northern Arizona Uni)	KEIM Paul; CURRIE Bart	Project
Variety Club of Australia	HOPKINS Susie; MORRIS Peter	Resource Development
Wellcome Trust	ANSTEY Nicholas; TJITRA Emiliana	International Collaborative Research Grants
Wellcome Trust	PRICE Ric	Career Development
WHF/Vodaphone	CARAPETIS Jonathan	Prevention Program
WHF/Vodaphone	CARAPETIS Jonathan	Knowledge Transfer
Wodonga Tafe	NAGEL Tricia	Resource Development
Wyeth Australia Pty Ltd	RUBEN Alan	Project



Title	Year From	Year To	Awarded \$
An Immunodiagnostic Assay for Scabies	01-01-07	31-12-09	364,500
Mathematical modelling of bacterial carriage in children	01-01-07	31-12-08	409,750
Aboriginal Birth Cohort Study: from childhood to adulthood	01-01-07	31-12-09	481,275
An epidemic of vulvar cancer in young women: investigating the role of Human Papillomavirus and genetic susceptibility	01-01-07	31-12-08	476,625
Azithromycin versus placebo in the treatment of asymptomatic acute otitis media in young Aboriginal children: ARCT	01-01-07	31-12-10	1,290,125
Endothelial function and adjuvant therapies in sepsis	01-01-07	31-12-09	94,266
Rotavirus gastroenteritis in the Aboriginal population and the effect of immunisation	01-06-07	31-12-09	94,266
Community-associated methicillin-resistant <i>Staphylococcus aureus</i> : epidemiology, emergence and treatment	01-01-07	31-12-09	94,266
Investigation of cardiac autoantigens identified by screening a cDNA library with acute rheumatic fever sera	01-01-07	31-12-10	274,000
Vaccination to reduce ear disease in Aboriginal and Torres Strait Islander children in the Northern Territory	01-01-07	31-12-09	94,266
The nature of brain function recovery following abstinence from petrol sniffing	01-01-07	31-12-09	65,598
Prevention of pneumococcal diseases, streptococcal disease and influenza among Indigenous populations	01-01-07	31-12-10	274,000
NHMRC Equipment Grant - 2006	01-11-06	30-06-07	476,625
Diagnostics for drug resistance	25-09-07	25-09-09	334,875
Father Frank Flynn Fellowship	01-06-05	01-06-12	522,000
Burden of influenza and respiratory viruses among Aboriginal children in the Top End	22-10-07	22-10-09	60,000
Aboriginal Birth Cohort Study	01-03-06	07-02-07	30,000
Full Moon Evaluation	06-12-07	31-12-08	13,000
Community consultation at Oenpelli and Milingimbi as part of Healthy for Life	01-01-07	31-12-07	40,000
AIMHi(NT) Mental Health Case Planning Training	01-09-06	30-06-08	50,000
Proposal to provide facilitation services to selected Aboriginal Community Controlled Health Services	01-01-06	31-12-07	N/A
Gambling Intervention Services and Community Education Program			133,820
Evaluation and integration of regional healthy skin programs to reduce chronic diseases	10-03-05	30-06-07	268,318
New approaches to improving health, developmental and educational outcomes for Indigenous children aged 0-8 years	01-08-07	01-02-08	135,881
Screening for rheumatic heart disease in Indigenous children	01-01-07	30-06-10	1,365,338
Extension of Selective use of long-term antibiotics for chronic lung obstructive disease in Aboriginal adults: A multi-centre trial	01-07-07	31-12-08	130,086
Mechanisms of acaricide resistance	01-02-07	01-02-09	566,250
RHD Kimberley Project Officer position	10-10-07	09-01-08	13,124.83
Puggy Hunter Memorial Scholarship - Direct Research Costs	1-01-07	31-12-08	15,000
Vaccine Response Study	01-09-07	01-08-08	50,000
Defining the bacterial cause of chronic ear disease in Indigenous infants	31-12-07	31-12-08	19,800
Laboratory-based work on cerebral malaria at the MSHR in Darwin. Clag: a new gene important in severe malaria	01-01-01	31-12-07	118,360.12
High-resolution/Highly sensitive assays for forensic analysis and attribution of bacterial biothreat agents	21-09-06	01-02-08	98,250
The Australian Indigenous EarInfoNet - An Ear Health and Hearing Web Resource and Network	28-02-06	31-03-09	356,077.12
Research and training to reduce morbidity and mortality from malaria in Papua (Indonesia) and Papua New Guinea	01-01-04	31-12-08	1,502,089
Optimising the management of drug resistant vivax malaria in Papua, Indonesia	01-08-04	31-07-09	712,530
World Heart Federation Rheumatic Fever/ Rheumatic Heart Disease Secondary Prevention Programme in the Pacific Island Nations - Coordination Costs	01-07-05	30-06-08	rec: 304,591.27
World Heart Federation Rheumatic Fever/ Rheumatic Heart Disease Secondary Prevention Programme in the Pacific Island Nations - Regional Practical Training Workshop	01-07-05	30-06-08	rec: 224,020.86
Staying Well, managing depression and avoiding drug and alcohol problems	01-08-07	15-08-08	60,000
The incidence of hospitalised, radiologically diagnosed pneumonia in Aboriginal children aged less than two years in the Northern Territory, 1998-2004	01-07-03	31-03-07	518,600

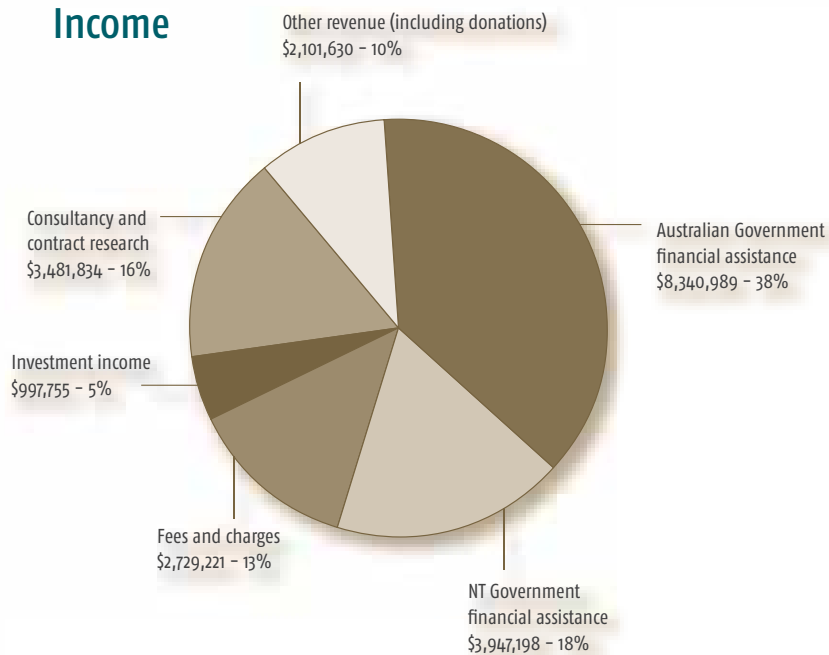


## 1 January 2007 – 31 December 2007

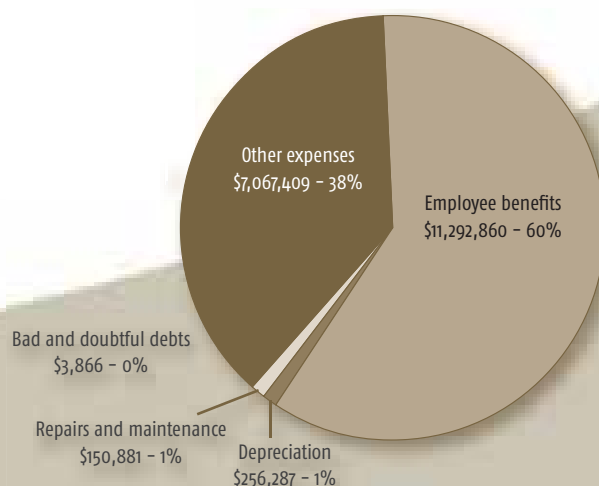
	2007	2006	2005	Percentage Change 2007-06	notes
Income	\$21,598,627	\$16,716,740	\$15,912,771	29.20%	1
Expenditure	\$18,771,303	\$14,690,559	\$16,049,179	27.78%	2
Net surplus/(deficit)	\$2,823,295	\$1,941,139	-\$136,408	45.45%	3
Net assets	\$14,194,175	\$11,321,948	\$9,413,968	25.37%	4
Staff (full time equivalents)	170	120	116		5

1. Increase in income is attributed to an increase in competitively awarded research grant funding and research grants transferred to Menzies on employment of new researchers
2. Increase is related to new projects commencing
3. Due to timing issues between receipt of project funds and commencement of actual project activity
4. Includes cash balances from agreed funding contracts that are committed to future research activities
5. Represents a general increase in staff numbers across the six divisional areas

### Income



### Expenditure



# *financial overview*



Aboriginal Medical Services Alliance NT  
 Mr G Adams  
 Airnorth  
 Alaska Tribal Consortium, USA  
 ALCAN  
 Alcohol Education and Rehabilitation Foundation  
 Alice Springs High School  
 Alice Springs Hospital  
 Alphapharm  
 Amity Community Services  
 Angurugu Community Council  
 Angurugu Health Centre staff  
 Angurugu Mental Health Workers  
 Mr B Armstrong  
 Army Malaria Research Institute, QLD  
 Arnhem Land Progress Association  
 Mrs V Asche  
 Association for Relatives and Friends of the Mentally Ill  
 Auckland Hospital, NZ  
 AUSAID  
 Austin Hospital, Melbourne  
 Australian Academy of Science  
 Australian Agency for International Development  
 Australian Centre for the Control of Iodine Deficiency Disorders  
 Australian College of Dermatologists  
 Australian Government Department of Health and Ageing  
 Australian Indigenous Health InfoNet  
 Australian Institute of Aboriginal and Torres Strait Islander Studies  
 Australian Institute of Health and Welfare  
 Australian National University  
 Australian Primary Health Care Research Institute  
 Australian Red Cross  
 Australian Research Alliance for Children & Youth  
 Australian Research Centre for Population Oral Health  
 Australian Research Council  
 Australian Respiratory Council  
 Bagot Community Council  
 Bagot Community Health Centre  
 Baker Heart Research Institute  
 Balanu Foundation  
 Banyan House, NSW  
 Banyan House, NT  
 Batchelor Institute for Indigenous Education  
 Bawinanga Aboriginal Corporation  
 Benelong's Haven  
 Berrimah Prison  
 Berrimah Veterinary Laboratories  
 Bikerton Island Health Clinic  
 Biosecurity Australia  
 Ms R Bracher  
 Burnet Institute, Vic  
 Cairns Base Hospital  
 Calvary Mater, Newcasatle  
 Catholic Education Office, NT  
 Centre for Vaccinology & Tropical Medicine, UK  
 Central Australian Aboriginal Alcohol Programs Unit, NT  
 Central Australian Aboriginal Congress  
 Centre for Aboriginal Economic Policy Research  
 Centre for Chronic Disease- The Univeristy of Queensland  
 Centre for Disease Control, NT  
 Centre for International Child Health, Melbourne  
 Centre for Military and Veterans Health, Qld  
 Centre for Remote Health  
 Centre for Vaccination and Child Health, Vic  
 Channel 7 Children's Research Foundation  
 Charles Darwin University  
 Children's Dental Health Services, NT  
 CogState Ltd  
 Cooperative Research Centre for Aboriginal Health  
 Cooperative Research Centre for Emerging Infectious Disease  
 Council for Aboriginal Alcohol Program Services  
 Council for Aboriginal Alcohol Services  
 Cracked Pepper Communications  
 Creative Territory, NT  
 Crocodylus Park, NT  
 Cutting Edge  
 CSL Ltd  
 Danila Dilba Health Services  
 Department of Health & Community Services, NT  
 Diabetes Australia Research Trust  
 Drug and Alcohol Services Alice Springs  
 Duke University, USA  
 Edith Cowan University  
 Eijkman Institute, Indonesia  
 Foundation for Children  
 Mrs S Frey  
 Galiwin'ku Community Council  
 Gapuwiyak Community Council  
 Geneva International Solidarity Fund  
 George Institute of International Health  
 Ms B Gibson  
 GlaxoKlineSmith  
 Gove District Hospital  
 Government of Samoa  
 Harold Mitchel Foundation  
 Herbert Karuiki Memorial University, Tanzania  
 Hermansberg Community Council  
 Ian Potter Foundation  
 Ilpurla Community Council  
 Imperial College, UK  
 Independent Grocers, NT  
 Institute of Medical & Veterinary Science, SA  
 Institute of Medical Research, PNG  
 James Cook University, Qld  
 John Ratcliffe Hospital, UK  
 Katherine District Hospital  
 Kidney Health Australia  
 Land and Water Australia  
 Lanyhapuy Homelands  
 Liverpool School of Tropical Medicine, UK  
 London School of Hygeine and Tropical Medicine  
 Maari Ma Health Aboriginal Corporation  
 Mahidol University, Thailand

# collaborators, friends and supporters

Malabam Health Board  
Maningrida Community Council  
Maningrida Health Clinic  
Marn Garr Community Council  
Marthakal Homelands  
Mr R Martin  
Menzies Foundation  
Menzies Research Institute  
Milikapiti Health Centre  
Milingimbi Community Council  
Ministry of Education, Fiji  
Ministry of Health, Fiji  
Ministry of Health, Timor Leste  
Monash University, Vic  
Moss Green  
Murdoch Childrens Research Institute  
Myliya Rumurra, Broome  
National Centre for Immunisation Research and Surveillance  
National Drug Research Institute, Perth  
National Health and Medical Research Council  
National Health Service, Samoa  
National Heart Foundation  
National Institute of Health Research and Development, Indonesia  
National Institutes of Health, USA  
National University of Australia  
National University of Singapore  
Nganampa Health  
Nguiu Health Centre  
Northern Arizona University, USA  
Northern Land Council  
Northern Territory Renal Service  
Northern Territory Renal Service  
Northern Territory Tourism  
Novartis Foundation, Switzerland  
NT Research and Innovations Fund  
Oenpelli Community Council  
Office of Aboriginal and Torres Strait Islander Health  
Organisation for Intra-cultural Development, Kyoto  
Outback Stores  
Oxford University, UK  
Pan African Society of Cardiology  
Papunya Community Council  
Paspaley Pearls  
Pfizer cardiovascular-lipid  
Pinnacle Print Group  
Port Keats Community Council  
Power & Water Corporation, NT  
Pratt Foundation  
Princess Alexandra Hospital, QLD  
Queensland Institute of Medical Research  
Queensland University of Technology  
Ramingining Community Council  
Rebecca L Cooper Medical Research Foundation  
Rio Tinto Aboriginal Foundation  
Mr D Rioli  
Rioli Fund for Aboriginal Health  
Royal Australian College of General Practitioners  
Royal Childrens Hospital, Brisbane  
Royal College of Nursing  
Royal Darwin Hospital  
Royal Perth Hospital  
Royal Prince Alfred Hospital  
Royal Women's Hospital, Brisbane  
Rumah Sakit Mitra Masyarakat, Indonesia  
Mr R Ryan  
St Vincent's Hospital, Melbourne  
School for Social Policy Research, CDU  
School of Medicine, Fiji  
School of Nursing, Fiji  
Mr K Sheedy  
Sidney Myer Foundation  
Sophia University, Tokyo  
Sprout Creative  
Steve Rowe Associates  
Swiss National Science Foundation  
TAFE Wodonga  
Tangentyere Council  
Telethon Institute for Child Health  
Telstra Foundation  
TH Northern Trading  
The Smith Family  
Tiwi Island Local Government  
Tiwi Land Council  
Tiwi Mental Health Team  
Top End Division of General Practice  
Townsville Hospital  
Tropical Medicine Research Unit, UK  
Trust Company Limited  
Tudor Foundation  
Umbakumba Health Clinic  
University of Adelaide  
University of Cape Town, South Africa  
University of Connecticut, USA  
University of Florida  
University of Liverpool, UK  
University of Manitoba, Canada  
University of Melbourne  
University of Michigan, USA  
University of New South Wales  
University of Otago, NZ  
University of Queensland  
University of South Australia  
University of Sydney  
University of Tasmania  
University of Utah, USA  
University of Wollongong  
Variety the Childrens Charity  
Vodafone Group Foundation, UK  
Waltja Tjutangku Palypayi  
Wellcome Trust  
Wellcome Trust-Oxford University, Bangkok  
Westmead Children's Hospital  
Women and Children's Hospital, Adelaide  
World Antimalarial Drug Resistance Network  
World Health Organization  
World Heart Federation  
Wyeth International  
Yalu Marnggithinyaraw  
Yiara Christian College  
Yirikala Community Council  
Yuendumu Community Council  
Zendanren, Japan





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This Annual Report was produced by the Communications and Development Unit of the Menzies School of Health Research with input and much welcomed assistance from the staff and students of Menzies.

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### **Copywriting, editing and project management**

Julie Carmichael

### **Design and layout**

[www.sprout.com.au](http://www.sprout.com.au)

### **Printing**

Pinnacle Print Group

### **Assistance with artwork copyright**

Northern Editions at Charles Darwin University

## **Cover Art**

Donald Moko

*Purndi Jarpa* 2007

Screenprint on paper

Image size: 51 x 71cm; paper size: 71 x 100cm

Image reproduced courtesy the artist, Short Street Gallery and Northern Editions at Charles Darwin University (CDU).

Artwork featured on the front cover of this publication is by Donald Moko and was produced at Charles Darwin University's printmaking studio, Northern Editions. Moko is a senior law man and Marpan (medicine man) from the Mindi Mindi clan of the Yulparija. He was born c.1928 at Kalajadu near Wangkatjungka, west of Well 33 on the Canning Stock Route in the Great Sandy Desert.

Purndi Jarpa depicts the traditional country in which Moko spent his early years; he explains: "This is everybody's country, if you go to part of this country you can get sick and die, it is law country. It is old man's country. This is where my daddy and two brothers died. We lived in this country, it is good hunting country, lots of kuwi (meat), marlu (kangaroo), birds and dingoes."

Moko moved to Bidyadanga in the late 1960's with his wife Mary Meribida and their children. The community of Bidyadanga, located on the West Australian coast about 200km south of Broome, was established in the 1970's after drought and equal pay conditions forced the relocation of the Yulparija people from their country in the Great Sandy Desert.

The Yulparija artists began painting in 2003 and more recently were introduced to the medium of printmaking when CDU printmaker Bobbie Ruben conducted a week long print workshop at Broome's Short Street Gallery in September 2006. This workshop took place not long after the artists had returned, freshly inspired, from a trip to their desert country where the old people took their children and grandchildren to see and experience their heritage.

This screenprint was exhibited in August 2007 by Northern Editions, Charles Darwin University and is held in a number of major public and private collections, including the CDU Art Collection.