

2011 annual report



discovery for a healthy tomorrow



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. This Act was amended in 2004 to formalise the relationship as a Controlled Entity of Charles Darwin University (CDU). Menzies is now a major partner of CDU, but remains controlled by its own Board, has its own financial and administrative structures, and can enter into contracts in its own right.

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

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In the spirit of respect, 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.



Nakisha Ahmat at the Centre for Child Development and Education launch, Darwin, NT

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our vision & who we are

At the Menzies School of Health Research we believe that quality of life is grounded in wellbeing and good health.

We seek solutions to problems that matter, and that when tackled, have the potential to make an immense difference to the quality of lives in Australia and abroad.

Our independent medical research institute has a 27-year history of scientific discovery and public health achievement.

Our talent pool comprises over 380 staff, including many award-winning researchers from around Australia and the region.

Most of our work is funded through competitive research grants, and we have an annual income of approximately \$38 million.



Children from Galiwinku, NT



Where we work

Our work spans across approximately 60 communities in Central and Northern Australia.

Menzies headquarters are in Darwin, with offices in Alice Springs, Brisbane and Adelaide and Timika (Indonesia).

Our reach extends to developing countries within our global neighbourhood, and includes:

Indonesia, Timor-Leste, Malaysia, Philippines, Vietnam, Thailand, Sri Lanka, Bhutan, North Korea, South Korea, China, and the Pacific Region.

What we do

Menzies is a national leader in Indigenous and tropical health.

Our aim is to improve and advance health. We endeavour to break the cycle of disease and to reduce the health inequities in Australia and the Asia Pacific region, particularly for disadvantaged populations.

We set our sights on fostering excellence and leadership in scientific research and education. We also strive to increase the capacity of health service providers, professionals and researchers – to help them deliver better services based on evidence about what works, and what doesn't.

Menzies' research extends across four areas:

- **Child Health**
- **Global and Tropical Health**
- **Mental Health, Wellbeing and Chronic Diseases**
- **Epidemiology and Health Systems**

We also have a strong emphasis on Education and Training.

Our world-class laboratory research includes the analysis of life-threatening bacteria, malaria, staphylococcal, snake venom and scabies mites.

Menzies' approach is look both at and beyond disease. In addressing

the urgent disparity between the health of Indigenous and non-Indigenous Australians, for instance, we take into account wide-ranging social factors – such as child development, education and housing, employment and the environment.

We believe in the strength of collaboration. We partner with leading global health and research organisations – and with the communities we hope will gain from our projects – to not only expand the expertise contributing to Menzies' work, but to ensure that our findings reach the widest audience and deliver the greatest possible benefit.



Felicity Ward holds Dhunbiryun at Galiwinku, NT

This year saw the completion of Menzies' five year Strategic Plan (2007–11). The new Strategic Plan (2012 to 2016), follows five years of rapid growth as well as impressive achievement across all of our research themes.

The next five years will be a period of consolidation and carefully targeted growth. These strategic priorities will ensure that our existing research and education themes and teams are strengthened and sustainable, and that we focus on developing and supporting the people who make up Menzies. We will pay attention to excellence and seek depth over breadth, and quality over quantity.

Vision

To improve health outcomes and reduce health inequity for populations in Australia and the Asia-Pacific region, particularly Aboriginal and Torres Strait Islander communities, through excellence and leadership in research, education and capacity development.



Dr Josh Davis examining a patient at Royal Darwin Hospital, Darwin NT

Ways Of Working

Collaboration: We seek to partner with communities, health and other service providers, policy-makers and other researchers.

Responsiveness: Our work is informed by health needs and shared priorities of the people and communities with whom we work.

Innovation: We embrace and develop new approaches and technologies.

Taking a chance: We ensure that high risk/high reward projects are part of our research portfolio.

Building research capacity: We foster and develop the researchers of the future, with a particular emphasis on Aboriginal and Torres Strait Islander researchers and researchers from developing countries.

Communication: We maintain an ongoing dialogue with partners, stakeholders and the local and national community during the research process, from conception through to completion and the translation of results. We enhance our communication and marketing expertise to increase our public profile and raise awareness of Menzies within the community.

Integrity: We are open, honest and transparent and maintain the highest standards of governance, accountability and ethics.

Quality: We strive for excellence and rigour in everything we do.

Integration: We build on and share the skills, knowledge, information, systems and learnings that we and our stakeholders already have.



Professor Sven Silburn joins Yalmay Yunupingu at the launch of the Centre for Child Development and Education in Darwin, NT

Strategic Priorities

1. Excellence in community based research

Menzies will develop new methodologies and extend its partnerships to position itself as the leader in community-based health and wellbeing research.

2. Creating the workforce of the future

Menzies will support, develop and provide career pathways for its staff, and for the researchers of the future.

3. Building on our strengths in postgraduate education and research training

Menzies will build on its existing strengths in postgraduate education and higher degree research training.

4. Increasing and diversifying funding

Menzies will enhance its public profile with the aim of diversifying its funding base and increasing the proportion of Menzies' income that is not restricted to specific projects.

5. Enhancing the work environment

Menzies will further enhance a work environment (physical, systemic and social) that sustains high morale, increases productivity, efficiency and quality, enhances staff supervision, recruitment and retention, and that operates to the highest standards of governance, management and accountability.

6. Translating research into action

Menzies will excel in translating research outcomes into policy and practice.

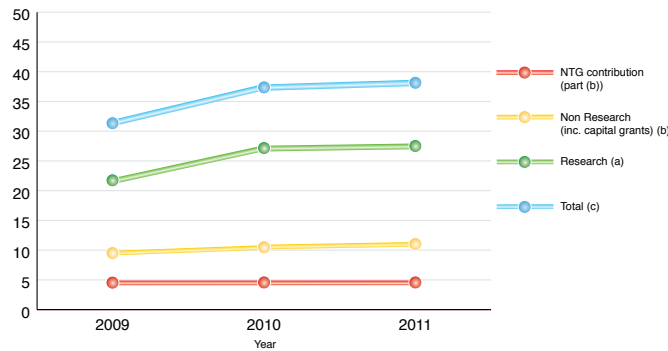
7. Working with health care providers

Menzies will better integrate our research with service providers and their priorities.

8. Making better use of our laboratories

Menzies will increase its capacity in laboratory research, with a continuing focus on infectious diseases and immunology, including applying emerging biomedical research technologies to its research projects.

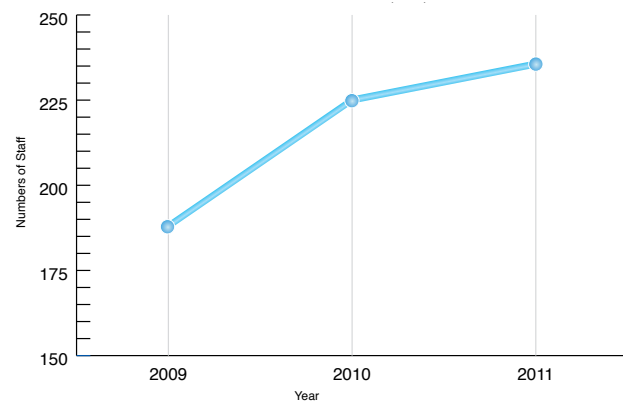
Income (\$millions)



Total income

In 2011, Menzies received total income of \$37.9m, including \$4.2 million in research funding; \$10.6m in non-research funding; and \$1.8m in NT Government core funding.

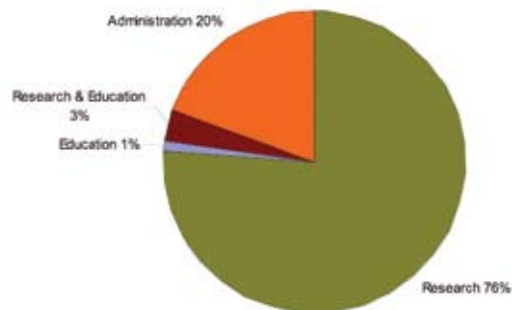
Number of Staff (LTE)



Number of staff (FTE)

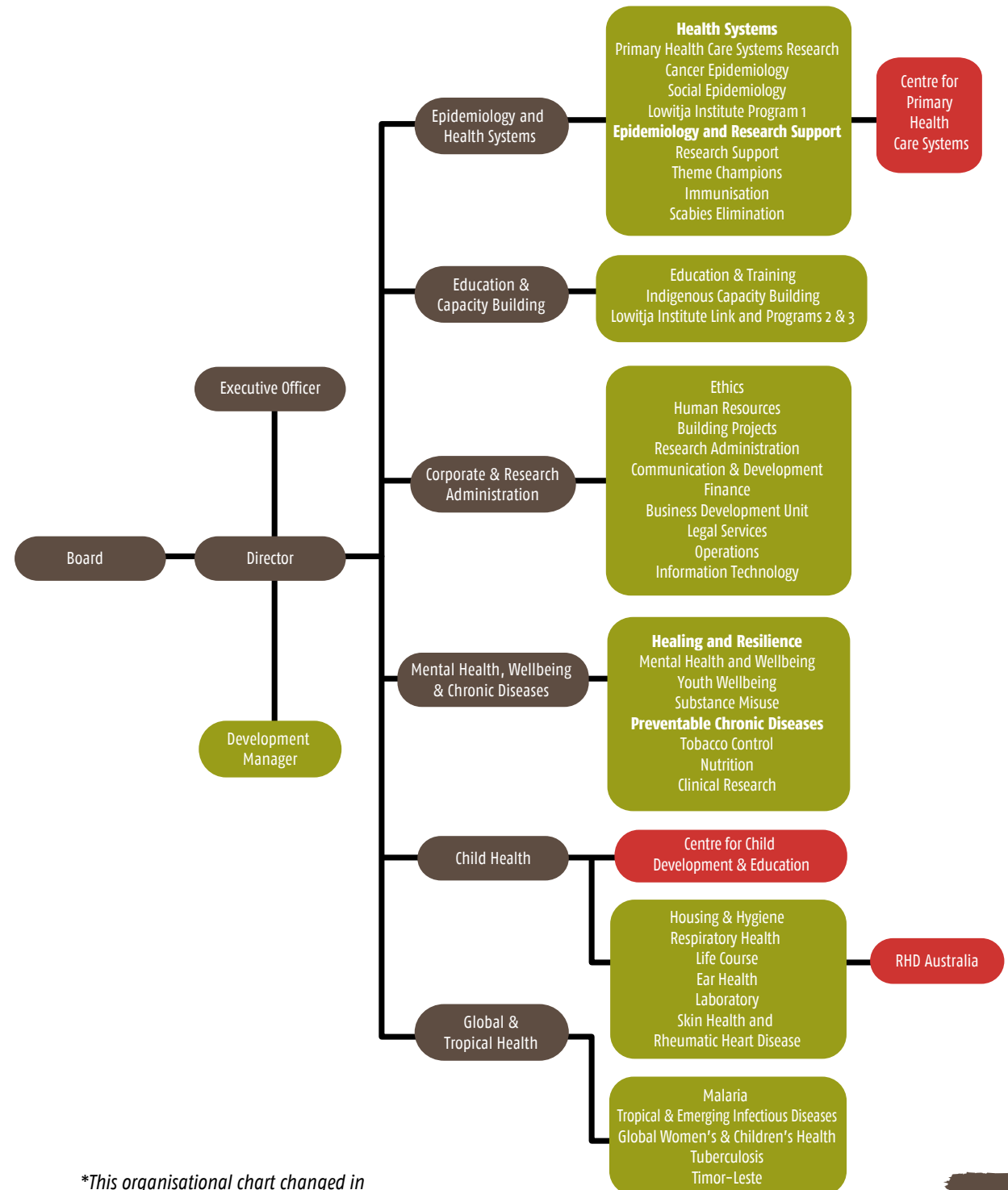
In 2011, Menzies had 389 staff, made up of 236 full-time equivalent staff.

Employees by Category



Employees by category

In 2011, 8/10 of Menzies staff were engaged in Research and Education roles.



*This organisational chart changed in 2012 following a restructure

a message from the chair and director

The Menzies School of Health Research (Menzies) continues to experience enormous development and growth, allowing us to deliver outstanding research performance.

The impact of our contribution is demonstrated in a new report by Deloitte Access Economics entitled *Economic and social contribution of Menzies School of Health Research to the NT, Australia and the Asia Pacific*.

The report found Menzies made a social and economic contribution of \$393 million to Australia and the Asia Pacific – \$87 million to the Northern Territory (NT) alone – from 2002 to 2010.

The total benefit cost ratio was 3:12, 44% higher than the return on each \$1 investment in Australia's health research and development as a whole (2:17).

Menzies has maintained its excellent reputation as a source of quality research, producing 155 peer reviewed publications, a 52% increase from 2010. Our researchers have received a number of prestigious acknowledgements and awards for their work, as outlined later in this report.

We also grew our reputation in Education and Training, starting a new Graduate Diploma in Health Research during 2011, increasing enrolments and graduands across all postgraduate courses, and bringing the number of Charles Darwin University (CDU) Higher Degree Research students supervised by Menzies academics to a total of 49.

We continue to provide advice to stakeholders at all levels – from government to Indigenous communities. A major highlight of 2011 was our launch of the Centre for Child Development and Education, introducing a focus on education, child protection and families, including research and policy-based work to support the NT Inquiry into the Child Protection System.

In line with our increasing emphasis on collaboration, Menzies has strengthened and improved relationships with its partner organisations including CDU, the Northern

Territory Government (beyond the Department of Health to include the Departments of Children and Families, Justice, and Education and Training and others), the Aboriginal Medical Services Alliance of the Northern Territory and its members. In 2011, Menzies renewed its Memorandum of Understanding with CDU, further strengthening this major partnership.

It has been an outstanding year for income generation from National Health and Medical Research Council (NHMRC) grants to support research and education activities. 71% of Menzies' applications were successful, resulting in an additional \$17.6 million of funding for Menzies. This success rate leads the country when compared to the national success rate of 24%.

Overall, Menzies received the fifth largest competitively-won grant funding out of 26 Medical Research Institutes (MRIs), behind four much larger institutes; and for eight consecutive years, Menzies has been the largest single recipient of NHMRC-awarded funding for Indigenous health research.

2011 played host to an outstanding annual oration when her Honour the Honourable Sally Thomas AM, Administrator of the NT and former Judge of the Supreme Court of the NT, delivered a talk on the subject of Health, Crime and Unsung Heroes.

This year we extended our congratulations to CEO of the Central Australian Aboriginal Congress Stephanie Bell who was awarded the 2011 Menzies Medallion for her significant contribution to primary health care and Indigenous health.

Design and planning for our new \$46 million facilities at the Royal Darwin Hospital and CDU campuses continues. By mid 2013, we can expect to see two modern and ecologically sound buildings that are truly iconic, flexible and functional. This new infrastructure will position Menzies for a long and productive future.

Other important success for Menzies in 2011 included:

- **Further strengthening of global health research**, diversifying from Indonesia's West Papua into new countries – Sabah (Malaysia), Vietnam, Timor-Leste and numerous Pacific countries.
- **Menzies gains new Indigenous cancer research team**. Currently no national statistics on cancer in Indigenous Australians exist. To broach this knowledge gap, we have extended our reach to include psycho-oncology and cancer epidemiology research with Indigenous people, and welcomed two esteemed cancer researchers, Associate Professors Gail Garvey and Patricia Valery and their staff to our Brisbane Office.
- **Twining with Timor-Leste**. A Memorandum of Understanding was signed with the Timor-Leste Ministry of Health with the aim of founding a long-term partnership for health development that fosters mutually beneficial cooperation.
- **Menzies/CDU rated as 'above world class standards' by the Australian Research Council's Excellence in Research for Australia (ERA) initiative process** in the categories of clinical sciences and medical microbiology.

In December, Director Jonathan Carapetis announced his decision to leave Menzies in mid-2012 to take up a new position as Director of the Telethon Institute for Child Health Research in Perth. The 2011 outputs reported in this document highlight the strong position in which he leaves Menzies, and we are pleased to note that the search has already begun for the next Director.

Once again we reflect on another successful year for Menzies. We offer our thanks to the amazing staff and students who make up Menzies, and to the communities, collaborators and friends who lent, and continue to lend, their support to our search for the evidence and solutions needed to improve the health of our nation and of our region.

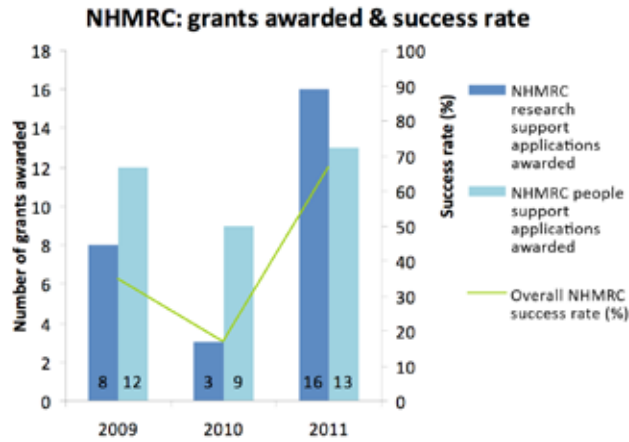


Professor Simon Maddocks, Chair

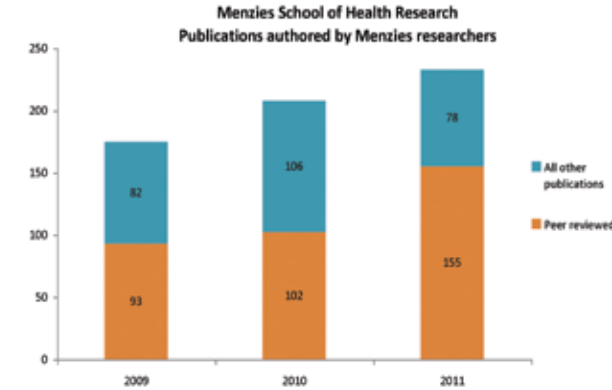


Professor Jonathan Carapetis, Director

research and education at a glance

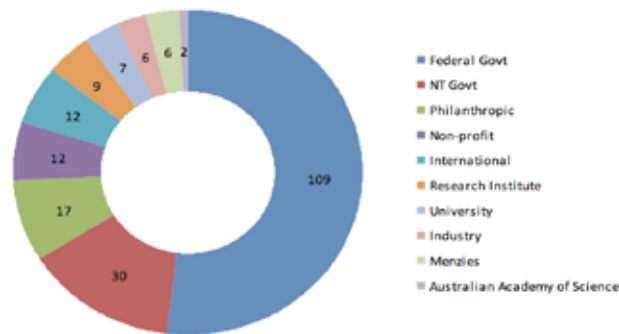


In 2011, 71% of Menzies' applications to the National Health and Medical Research Council (NHMRC) for grants to support research and education activities were successful.

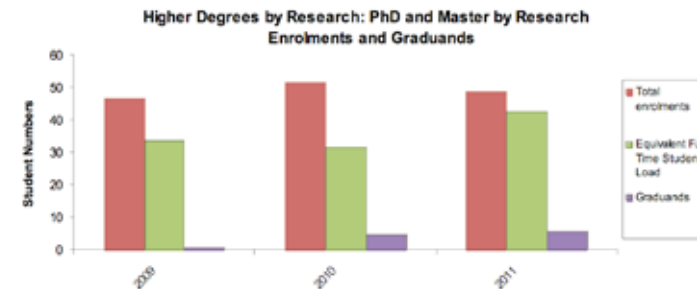


In 2011, Menzies researchers produced 155 peer reviewed publications, a 52% increase from 2010. This reflects our emphasis on high quality research outputs, further illustrated by our annual citations of Menzies-authored journal articles (3,371 in 2011, up from 3,025 in 2010).

Menzies research income in 2011 by funding source type -



In 2011, a majority of Menzies research income came from the Australian Government, followed by the Northern Territory Government.

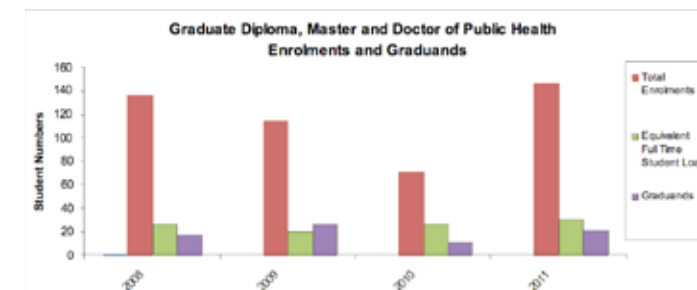


In 2011, there was an increase in both the number of students graduating from higher degrees by research (PhD and Master by Research) and the number of students enrolled on a full-time basis.

Menzies 2011 funding by grant type



In 2011, almost half of Menzies' awarded grants were project grants, followed by contract, fellowship and award and scholarship grants.



In 2011, participation in the Graduate Diploma, Master and Doctor of Public Health continued to increase.

Research highlights *child health*

When it comes to health, first impressions count; none more so than those made on a young life. It's a sobering fact that when compared with their mainstream counterparts, Indigenous children are more likely to suffer from conditions that disadvantage not only their formative years, but their subsequent adult lives, too.

Menzies is committed to research and solutions that aim to reverse this trend. Our work is focused on helping the Indigenous children of today become the healthy adults of tomorrow.

New guidelines to tackle middle ear infection

In the remote Northern Territory and some parts of Western Australia, up to 20% of children suffer from Chronic Suppurative Otitis Media, a form of middle ear infection. Menzies' researchers led a team of leading Otitis Media and hearing experts to update the evidence-based clinical guidelines, arming practitioners with the latest science to help deliver high-quality care to Otitis Media sufferers. These were launched by the Australian Government.

LungInfoNet

Respiratory illness is the most common reason Indigenous Australians are hospitalised. In partnership with Edith Cowan University, an Indigenous respiratory disease web resource called the LungInfoNet was created. This one-stop shop provides information for people addressing respiratory disease among Indigenous people, and now has new flipchart resources for respiratory diseases such as chronic obstructive pulmonary disease, chronic suppurative lung disease and bronchiolitis. These will help health professionals and others to provide improved health education to Indigenous patients.

Chronic cough study

Cough is the most common symptom of respiratory disease. To improve the treatment of chronic cough in children, Menzies' researchers embarked upon a study of 346 children. After adopting a child-specific 'cough pathway' for the diagnosis and management of childhood chronic cough, the researchers found that children, who were previously coughing for an average of 16 weeks, stopped coughing after four weeks. The 'cough pathway' will be incorporated into Australian and international guidelines.

Reducing infant ear disease: PneuMum

Researchers completed a study known as PneuMum, which aimed to find out if pneumococcal vaccination of mothers during pregnancy could help prevent the chronic ear infections that lead to impaired hearing and deafness in Indigenous children and adults. The clinical trial demonstrated that vaccinating mothers during pregnancy leads to antibodies being passed onto the baby, both through cord blood and breast milk. The infants of mothers who were vaccinated during pregnancy also had lower rates of carriage of pneumococcal bacteria, which is considered an important precursor for less ear disease. The

final results on the impact upon ear disease will be released at the National Immunisation Conference in Darwin in 2012 where maternal vaccination will be a major focus.



The Centre for Child Development and Education (CCDE)

Launched in September 2011 by Northern Territory Chief Minister, the Hon Paul Henderson MLA, this ground-breaking Centre is a partnership between Menzies, Charles Darwin University (CDU) and the Northern Territory Government (NTG). Its work focuses on boosting development, wellbeing, education and opportunities among children, particularly Indigenous Australian children.

In its short life, the Centre has already spearheaded the following key initiatives:

Evaluating mobile preschools: a potential solution for remote Aboriginal children

Preschool participation is known to have dramatic, long-term positive effects on health and social and emotional wellbeing. The NTG's Menzies' Mobile Preschool Program uses a roaming preschool teacher to provide support and professional development to community based educators and up to 300 students in very remote small communities. Findings from this National Health and Medical Research Council-funded study showed that children with between six and 12 months' program experience were 157% more likely to be ready for school learning when compared with children with less than six months' experience of the program.

Informing policy: youth suicide

In the past decade rates of suicide have doubled among Northern Territory (NT) children aged less than 18. Menzies gathered findings from a case audit of the NT Coroner's

records on self-inflicted deaths of persons under the age of 18 years over the period 2006 to 2010. All but one of the Indigenous child suicides investigated occurred via hanging.

The study findings and recommendations were provided in a report to the NT Child Death Review and Prevention Committee. This evidence also informed a Menzies submission to the recent Parliamentary Select Committee into Indigenous Youth Suicide in the NT. The Select Committee has since recommended a comprehensive set of actions for a new NT Suicide Prevention Strategy, including Menzies' suggestions. These included establishing an epidemiological register for monitoring suicide trends and developing a better understanding of key risk associations in order to inform prevention and to monitor strategy outcomes.

Research to guide the NT's Early Childhood Development Plan

In 2011 the NTG commissioned Menzies to produce a series of four discussion papers to inform public consultations for the NT Early Childhood Development Plan. The first paper reviewed the issues that need addressing in the NT. The second outlined evidence in support of investing in a child's early years as the most effective strategy for reducing inter-generational disadvantage. The third presented the case for a 'whole of government' and 'whole of community' approach to early childhood services. And the fourth outlined the economic, health and social benefits of investment in a child's early years. An NTG proposal for a comprehensive, across-government early childhood development strategy is expected shortly.

RHDAustralia

Acute Rheumatic Fever (ARF) is a significant cause of disease among Indigenous children, often leading to Rheumatic Heart Disease (RHD), a chronic heart condition in which the heart valves are damaged. Approximately 1% of all school-aged Indigenous children in the Northern Territory, rising to 2% of young adults, suffer the disease and its long-term complications that include heart failure, strokes and premature death.

To address this issue, a National Coordination Unit called RHDAustralia was founded as part of the Australian Government's Rheumatic Fever Strategy. It is led by the Menzies School of Health Research in partnership with Baker IDI and James Cook University. RHDAustralia's role is to establish a national central data repository, to develop and implement education and training resources and to review and disseminate a best practice clinical guideline.

RHDAustralia, and the National Rheumatic Fever Strategy, is an end result of almost two decades' work by Menzies researchers and our research collaborators and service delivery partners.

2011 highlights

- **Finalisation of ARF/RHD guideline**

The review, update and release of *The Australian Guideline for Prevention, Diagnosis and Management of Acute Rheumatic Fever and Rheumatic Heart Disease* (2nd edition) will help ensure best practice and significantly assist with improving diagnosis, management and clinical practice throughout Australia. Quick reference guides and an application for use with iPhone, Android and iPad were developed to ensure clinicians have easy access to key information from the guideline. These will be released in early 2012.

- **New tools for education and training**

National education, training and self-management resources were developed to assist with the detection and treatment of Acute Rheumatic Fever and Rheumatic Heart Disease.

- **Improving data collection**

Working closely with stakeholders RHDAustralia developed an ARF/RHD dataset and key performance indicators. The collection of accurate and consistent data across jurisdictions will assist with resource allocation and with measuring the quality of local health service delivery.



Professor Sven Silburn, Associate Professor Fional Arney, Associate Professor Gary Robinson, Georgie Nutton and Professor Jonathan Carapetis at the launch of the Centre for Child Development and Education, Darwin, NT



Mark Markurri at Galiwinku, NT

Research highlights *epidemiology and health systems*

The disease burden borne by Indigenous Australians is two and a half times greater than that of the mainstream population. Menzies' Epidemiology and Health Systems division seeks to improve Indigenous health by investigating what our community and society is doing well in our bid to improve health, and which areas urgently need attention.

The team's research focuses on the effectiveness of Australia's health care system (primary and tertiary), and also the influence of our social and physical environment – such as housing, social justice, racism, employment, women's and environmental health.

New cancer research team, headed by leading researchers

The survival rate for cancer patients is one of the most widely used measures of a health system's performance, yet currently no national statistics on cancer in Indigenous Australians exist. To bridge this knowledge gap, the division extended its reach to include psycho-oncology and cancer epidemiology research with Indigenous people. It facilitated the relocation of two key cancer researchers, Associate Professors Gail Garvey and Patricia Valery – as well as their staff – to its Brisbane Office.

This team has commenced work using national cancer registration data to calculate survival rates for Indigenous people with cancer, and to compare Indigenous survival rates to rates for other Australian cancer patients. Team members also made several presentations at the Annual Clinical Oncology Society of Australia Meeting held in Perth, November 2011. Finally, this team's Supportive Care Needs Cancer study has recruited over 200 Indigenous patients from four major

hospitals across Queensland. This study will for the first time in Australia investigate the support needs of Indigenous cancer patients. The team is also working on mechanisms on how it can assist these patients to reduce their cancer support needs and, in turn, improve patient outcomes.

Investigating Indigenous cervical cancer screening participation

Indigenous women are 2.7 times more likely to develop cervical cancer and they have 5.2 times higher mortality rates from this cancer than non-Indigenous women do. In 2011, the division embarked on a cervical cancer data linkage project delving into cervical cancer screening participation and outcomes for Indigenous women. The study will address a major deficiency in the National Cervical Screening Program, which is currently unable to report on cervical screening participation, abnormalities or outcomes for Indigenous women.

Diabetes exploration goes urban

The high occurrence of diabetes among Indigenous people in Australia's urban areas – and how we can reduce the disease's incidence in these populations – is a neglected area of research. In 2011, Menzies gained funding and ethics approval to conduct a 7–9 year follow-up of the DRUID Study cohort, a partnership between researchers, health service providers and an Indigenous steering group whose members come from Darwin's Indigenous community. This project will serve as the largest study of urban Indigenous adults in Australia, helping establish risk factors for premature mortality, heart disease, stroke, diabetes and related conditions in Indigenous Australians.

Primary Health Care Systems

Now in its second year of operation, the Centre for Primary Health Care Systems conducts research and translates this into action, helping create healthy communities through locally supported and effective primary health care systems.

In 2011, the Centre had the following achievements:

Boosting health care quality

- The Audit and Best Practice for Chronic Disease Project (ABCD) National Research Partnership – a network of research, government and community organisations committed to improving primary health care quality for Indigenous Australians – continued to build momentum. The Partnership in South Australia (SA) was strengthened by SA Health's commitment to support local health centres to subscribe to One21seventy, adding to long-standing commitments from the Northern Territory (NT) and Queensland (QLD) Governments.

- One21seventy is a Continuous Quality Improvement (CQI) system that helps deliver quality comprehensive primary health care for Aboriginal and Torres Strait Islander people. It has provided training to more than 500 primary health care staff since its commencement in 2009, and is working with over 180 Indigenous primary health centres across QLD, NT, SA, New South Wales and Western Australia.

- The Improving Health Promotion through Quality Improvement project was completed in 2011. It successfully developed and tested an audit tool which

is now being refined for use nationally as part of the One21seventy package of CQI tools. It's expected to be of interest to a range of community services as well as primary health care centres.

- A research project applying CQI to the management of Acute Rheumatic Fever and Rheumatic Heart Disease was completed. The project produced an audit tool already in use by more than 40 health centres to improve the standard of care for ARF/RHD patients.

Supporting major policy initiatives

- The Centre completed the five-year Support, Collection, Analysis and Reporting Function (SCARF) project, designed to support continuous quality improvement in chronic disease management and maternal and child health care for 100 Aboriginal and Torres Strait Islander services participating in the Australian Government's Healthy for Life program. The project significantly improved the capacity of Indigenous health services to report against key clinical indicators and to use them to inform action planning to improve service delivery.

- Successful progress continued for the Centre's three-year formative evaluation of the Australian Government's Indigenous Chronic Disease Package (ICDP) through the Sentinel Sites Project. Menzies provides regular feedback and informs the ongoing roll-out of this significant investment in national Indigenous health programs. The ICDP is part of the Council of Australian Government's National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes.



The Primary Health Care Systems and One21seventy teams

The Asia Pacific region is home to over 50% of the world's population, including substantial groups who live in poverty. Each year, millions die from malnutrition and infectious diseases such as malaria, tuberculosis and bacterial infections. In exploring ways to prevent these deaths, Menzies' Global and Tropical Health division partners with regional health services and institutes in the Asia-Pacific.

The division pursues a research agenda that includes work on bacteria, parasites, viruses and fungi – all of which pose serious threats to international health. A primary objective is to examine and develop solutions for hazards posed by the tropical environment of northern Australia. Nationally, the team's work includes research on the agents of skin disease, such as the bacteria *Staphylococcus aureus* and *Streptococcus pyogenes* (Group A strep or 'GAS') and the parasitic mite which causes scabies; the soil and water-borne bacterial disease, melioidosis; and on other severe infections resulting in community-acquired pneumonia and/or sepsis.

Malaria treatment and policy breakthroughs

Malaria is a major cause of death in the Asia Pacific, infecting around 500 million people annually. Menzies' researchers in Papua, Indonesia work closely with local and national policy-makers to optimise treatment guidelines for both uncomplicated and severe malaria. The program continues to monitor the impact of policy change – which has so far included a large reduction in the cases of the most severe malaria (falciparum malaria), perinatal mortality, infections at birth and an improvement in birth weight. Clinical and laboratory studies are ongoing. These investigate novel therapeutic approaches such as new antimalarial drugs, additional therapies and more efficient ways of delivering healthcare. With collaborators in the Papua Health and Community Development Foundation and the Liverpool School of Tropical Medicine, Menzies has secured Medical Research Council (United Kingdom) funding to continue the maternal child health program through a large randomised controlled study of health interventions designed to reduce malaria in pregnancy.

In Sabah, Malaysia, Menzies has partnered with the Queen Elizabeth Hospital to conduct studies into severe malaria. These have included the largest prospective study on the

monkey parasite, *Plasmodium knowlesi*, ever undertaken, highlighting the importance of this species as a major cause of severe malaria in people in this region and how rapid treatment with the drug artesunate can prevent deaths. Menzies has joined Malaysian and London School of Tropical Medicine partners in securing major Medical Research Council funding to understand how this monkey parasite is transmitted and how best to prevent and treat it.

More funds for malaria research

2011 saw the first round of research grants (11 in total) distributed by the Vivax Working Group of the Asia Pacific Malaria Elimination Network (APMEN), which is coordinated by Menzies' Global Health team. Designed to assist in the development of new tools and measures to eliminate malaria in the Asia Pacific region, these grants focus on the malaria parasite *Plasmodium vivax*, whose ability to lie dormant in the liver for long periods of time makes it less vulnerable to eradication. Over two billion people in Asia are at risk of vivax malaria – an estimated 250 million infections occur annually.

Capacity building and governance in Timor-Leste

In 2011, the Global and Tropical Health division partnered with the Research Cabinet within Timor-Leste's Ministry of Health to provide ongoing support and mentoring on research-related issues. These include ethics (a collaboration with the Menzies-Northern Territory ethics committee), research management, the use of evidence-based research to determine national health priorities and research methodology training for junior researchers. The collaboration seeks to foster independent research aligned to the nation's health priorities and to create processes for the approval, evaluation and management of ethical research.

Tuberculosis (TB)

TB remains a major cause of morbidity and mortality in the Asia Pacific. Our major randomised trial in Papua, Indonesia evaluated the role of additional treatments in improving TB treatment outcomes. These TB studies, which were extended to Sabah, Malaysia, will show whether inexpensive nutritional treatments are helpful for people with TB, and will shed light on how the immune system fights TB infection.

Members of Vivax Working Group touring the Jiangsu Institute of Parasitic Diseases, Wuxi, China



Controlling Rheumatic Heart Disease (RHD) in the Pacific

Menzies has been coordinating the World Heart Federation program of control of RHD in Pacific nations since 2005, in collaboration with the health ministries of participating countries. This model is now the global standard, and our assistance to Fiji, Tonga and Samoa has helped these countries to become largely self-sufficient in RHD control over the past few years. During 2011, Menzies secured funding from AusAID to expand these activities over the next four years to Kiribati, Tuvalu, Nauru and the Solomon Islands. At the same time, Menzies continued research in Fiji to explore practical ways to implement echocardiographic screening for RHD in school children in developing countries.

Better understanding the spike in melioidosis

In the 18 months prior to 2011, Australia's Top End experienced the highest annual incidence of melioidosis documented anywhere in the world to date. The disease causes both local and generalised infection, resulting in pneumonia in over half of all cases, with severe septic shock requiring intensive care therapy in one out of five cases overall. The increase in cases has predominantly affected the city of Darwin and its surrounds and evidence is mounting that, in addition to heavy rainfall and storms, soil disturbance and changes in land use practices are associated with this rise in reported cases of melioidosis. Menzies' and Royal Darwin Hospital's Darwin Prospective Melioidosis Study is now in its 22nd year. It continues to explore the clinical and microbiological aspects of melioidosis in the Top End, with the aim of lessening the disease's burden and decreasing patient mortality. The Menzies Melioidosis team this year analysed the occurrence of the melioidosis bacterium (*Burkholderia pseudomallei*) on construction sites, in residential gardens and in rural bore water. These ongoing studies will further unravel the ecology of this enigmatic environmental pathogen.

Golden staph and VRE in the NT

Staphylococcus aureus (golden staph) is a type of bacterium that can result in a range of infections, from mild to life-threatening. The more serious effects of golden staph infections include skin lesions, abscesses, large boils and blood poisoning. Rates of golden staphylococcal blood stream infections are six times higher in the Indigenous community compared with the non-Indigenous population. Menzies researchers are currently leading a national multi-centre clinical trial testing new antibiotic strategies for treating drug-resistant golden staph bloodstream infections. In 2011 our research identified that golden staph strains carrying the toxin PVL are particularly common in northern Australia, and, along with Royal Darwin Hospital specialists, Menzies has developed a protocol for treating patients with these infections. Finally, a new strain of *Staphylococcus* with very unusual characteristics has been fully characterised.

This is a fundamental advance in the understanding of the nature and diversity of this important bacterium, and provides insight into the relationship between lineage and virulence, and the genes that underpin virulence.

Interpreting Chlamydia diagnoses in young children

A diagnosis of sexually transmitted Chlamydia in a young child is regarded as evidence for sexual abuse, and so has enormous social and legal implications. It is therefore vitally important to understand if there is any possibility that such diagnoses can occur in the absence of sexual abuse. This is being investigated via a new initiative in collaboration with the Northern Territory Government Sexual Assault Referral Centre. New approaches to Chlamydia genetic analysis and to understanding Chlamydia environmental contamination have been developed.

Research highlights

mental health wellbeing and chronic diseases

Mental illness and wellbeing concerns are one of the fastest growing health problems nationwide, and Indigenous Australians are at high risk. Subject to a number of complex social factors such as substance misuse, violence and chronic disease, day-to-day living can be a struggle for many in remote communities.

Menzies tackles these challenges by empowering Indigenous people through strengths-based research approaches. Menzies' projects focus on picking up problems early, and developing tools for communities and individuals to stay strong – socially, spiritually, emotionally and mentally.

Of equal gravity is the number of early deaths that Indigenous Australians experience as a result of chronic diseases. On average, illnesses such as heart disease, stroke, diabetes, chronic respiratory disease and kidney disease account for over half of the health 'gap' between Indigenous and non-Indigenous populations. Menzies looks to advance the health of Indigenous Australians by researching both the causes and prevention of chronic disease – focusing on how this can be translated into everyday solutions.

Beating Depression

Menzies' BEAT depression project aims to promote social and emotional wellbeing by working with remote communities

to strengthen access to care and support for people at risk of depression and substance misuse. The project tests the effectiveness of brief, early intervention strategies for depression and the misuse of drugs and alcohol. Importantly, BEAT depression works to strengthen the Indigenous wellbeing workforce, empowering and training staff in screening and follow up strategies. The project runs from 2011 to 2014 and expects to map community pathways to care that can translate to other settings; it also expects to design a brief evidence-based treatment for those in remote communities.

Better access to nutritious foods

Good nutrition throughout life is fundamental to the maintenance of wellbeing and the prevention of disease. It plays a vital role in pregnancy and early childhood, prevents obesity and type 2 diabetes and can lower the risk of recurrent heart disease by up to 70%. However, remote communities face many barriers to healthy eating, including isolation, the high cost of food, short-term interventions and limited access to resources to improve decision making. The Good Food Systems: Good Food for All project helps to empower four communities to improve the capacity of their community groups, store committees and other stakeholders to improve the supply of food and local's access to food.

Continuous quality improvement (CQI) tools that support decision-making at the community level were developed

together with community members and combined with findings from systematic literature reviews. These are currently being piloted. They include a capacity assessment tool, food system assessment tool, monitoring and feedback systems for store sales data, and a store checklist for community member use. The project also supports local project officers to drive the quarterly CQI meetings, and a facilitation guide describing the CQI steps and tools is in development.

Kidney health (eGFR study)

The landmark eGFR study completed its baseline phase in 2011, assessing the accuracy of the standard test of kidney function in 600 Indigenous Australian participants across remote, regional and urban regions of NT, far North Queensland and Western Australia. The study team found that the current standard test underestimates kidney function in Indigenous Australians and has supported the move to the use of a revised formula to assess kidney function in all Australians. The team were successful in securing National Health and Medical Research Council funding for 2012-2014 to assess the progression of markers of kidney damage in this cohort of Indigenous Australians.

Extinguishing the smokes

In Australia, half of Indigenous people smoke – more than double the rate in non-Indigenous people. Tobacco smoking is responsible for one in five of all Indigenous deaths and

is one of the main causes of chronic disease amongst Indigenous Australians, and of the 'gap' in life expectancy. Talking About the Smokes is a national project to understand which tobacco control policies and programs are successful in reducing Indigenous smoking. In 2011 the research protocol, the research team and partnerships were finalised and the project received \$3.5 million funding from the Australian Government's Department of Health and Ageing.

Improving sexual health services for Australia's youth

High rates of Sexual Transmissible Infections (STIs) are a major contributor towards infertility, long-term disability and poor pregnancy outcomes among young Indigenous people. Although there are many interventions addressing this issue, Indigenous youth continue to bear a significant burden of sexual ill health. The Our Lives project, through its range of innovative research methods, will provide in-depth knowledge and understanding of how sexuality and relationships are understood and negotiated by young people aged 16-25 across three states: the Northern Territory, Western Australia and South Australia. This knowledge will be used to inform the development of effective and sustainable youth-friendly services and resources that help young people make positive decisions regarding sex and relationships. This project is well established in Alice Springs, Darwin and Borroloola (NT), and will commence in Broome (WA) and Ceduna (SA) in 2012.



education and training



Senior researcher Mark Mayo and Ian Harrington sampling for melioidosis bacteria, NT

Menzies' Education and Training team coordinates and delivers the Charles Darwin University (CDU) postgraduate coursework in public health and research methodology training, and it administratively supports Higher Degree Research students.

In 2011, Menzies developed the new Graduate Diploma in Health Research. This course focuses on developing competencies in health research design and the advanced skills of interpreting health information, epidemiology, statistical methods and qualitative research methods. The Graduate Diploma in Public Health (GDPH) and Master of Public Health (MPH) were revised and reaccredited as external courses. New units were developed to introduce students to the areas of Health Promotion, Indigenous Health Research, Research Design and Research Skills. The last cohort of Doctor of Health students commenced in Semester 1, 2011.

Enrolments and graduands across all postgraduate courses continued to increase in 2011. Eight people were awarded a Master of Public Health, ten people were awarded a Graduate Diploma of Public Health and three were awarded a Graduate Certificate of Public Health.

This year the Education and Training team developed a short course in Sexual and Reproductive Health. This course presented a comprehensive public health approach to managing sexual and reproductive health through the lenses of human rights, culture and diversity. Participants rated the course as an outstanding success.

Enrolment in the Master by Research and Doctor of Philosophy increased in 2011, bringing the number of CDU Higher Degree Research students supervised by Menzies academics to 49, up from 40 in 2010. A Menzies sub-committee of the CDU Research Committee was established to consider research student matters, such as supervision, monitoring progress, scholarship outcomes, confirmation of candidature and awards.

Successful scholarship recipients

Menzies had a number of successful scholarship recipients. Please see the index at the back of the report for a full listing.

Awarded a Doctor of Philosophy (PhD) in 2011:

Dr Jacqueline Boyle: Polycystic Ovarian Syndrome in Indigenous women (University of Adelaide)

Dr (Christopher) Paul Burgess: Where the dreaming changed shape: The Aboriginal and Torres Strait Islander Adult Health Check in a Remote Aboriginal Community

Dr Christabelle Darcy: The Role of Arginine and Tryptophan Metabolism in Sepsis

Dr Joshua Davis: SEPSIS in Tropical Australia: Epidemiology, Pathophysiology and Adjunctive Therapy

Dr Kylie Dingwall: Monitoring Cognitive and Psychological Changes for Indigenous Australians Following Petrol and Alcohol Abuse

Dr Jeanne (Rini) Poespoprodjo: Maternal and Child Health in Papua Indonesia: the Epidemiology of Malaria and Strategies for its Treatment and Prevention



Senior Research officer Kim Hare conducting lab work at Menzies, Darwin, NT

menzies award recipients

Menzies congratulates the following 2011 award winners:

External Awards:

Child Health

- Associate Professor Amanda Leach and Associate Professor Peter Morris received the MJA/Wyeth Award for the best original research article published in the *Medical Journal of Australia*.
- Kim Hare received the NHMRC's Gustav Nossal Postgraduate Scholarship. This is allocated to the top ranked applicant in the Biomedical category.
- Lesley Versteegh received the Thoracic Society of Australia and New Zealand (TSANZ) Indigenous Respiratory Nurse Career Development Award, enabling attendance at the 2011 Annual Scientific Meeting.
- Dr Nitin Kapur (Menzies PhD scholar) was awarded Best Postgraduate Student by the Queensland's Children's Medical Research Institute.
- Jana Lai won the Endeavour Research Fellowship and was the reserve candidate for the Prime Minister's Australia Asia Awards.

Global and Tropical Health

- Dr Steven Tong received the inaugural Fulbright Northern Territory Scholarship.
- Dr Tsin Yeo received the 2011 Northern Territory Chief Minister's Research and Innovation Award, and the 2011 Australian Institute of Marine Science Tropical Knowledge Research Award for Improving the Recognition, Understanding and Treatment of Severe Malaria in our Region.
- Professor Bart Currie was awarded the 2011 Northern Territory Postgraduate Medical Council Clinical Educator of the Year Award.
- Dr Annette Dougall was a finalist in the 2011 NT Young Tall Poppy Award for her work on the parasite leishmania, which causes significant diseases in humans and other animals.

Mental Health, Wellbeing and Chronic Disease

- Carolyn Griffin won the Chronic Disease Network Recognition award for Aboriginal and Torres Strait Islander Health Leadership.
- Dr Kylie Dingwall was a finalist in the NT Young Tall Poppy Award for her work on cognitive impairment and recovery from petrol sniffing and alcohol abuse among Indigenous Australians.
- Dr Vanessa Johnston was the Northern Territory finalist for the Australasian Faculty of Public Health Medicine Gerry Murphy Oral Presentations.

Epidemiology and Health Services

- Professor Joan Cunningham was awarded the Australasian Epidemiological Association Mentoring Award for her significant role in the professional development of several early career researchers.

Charles Darwin University Awards

The CDU Vice Chancellor's Award for Exceptional Performance in Research – Research Team Category – to two Menzies teams:

- Healthy Skin Research Team, including Associate Professor Ross Andrews, Teresa Kearns, Leanne Bundala Dhurrkay, Roslyn Gundjirryirr Dhurrkay, Marilyn Dhurrkay, Janice Djilirri, Terry Garrawarra, Veronica Gondarra, George Gurruwiwi, Grennady Wiranata, Thomas Yalandhu, Dr Asha Bowen, Dr Debra Holt, Associate Professor Shelley Walton, Dr Malcolm McDonald, Dr Steve Tong, Professor Jonathan Carapetis.
- Severe Malaria Research Team, including Professor Nicholas Anstey, Professor Ric Price, Dr Tsin Yeo, Dr Tonia Woodberry, Dr Gabriela Minigo.

Fellowships

- Associate Professor Amanda Leach: NHMRC inaugural Elizabeth Blackburn Fellowship, awarded to three outstanding female Research Fellows who excel in biomedical, clinical and public health research.

- Robyn Marsh: NHMRC Frank Fenner Fellowship, awarded to the highest ranked applicant from the Public Health Early Career Fellowship category whose international public health research best reflects the qualities Professor Fenner exemplified throughout his career.
- Dr Rachael Hinton: NHMRC Early Career Fellowship
- Professor Ric Price: Wellcome Trust Senior Fellowship
- Dr Heidi Smith-Vaughan: NHMRC Career Development Fellowship
- Dr Jutta Marfurt: Swiss National Science Foundation Fellowship
- Heather Grieve: Australian Leadership Award Fellowship through AusAid.

Internal Awards

- Stephanie Bell, CEO of the Central Australian Aboriginal Congress, was awarded the Menzies Medallion for her significant contribution to health in the Northern Territory.
- Maria Scarlett, from Menzies' ethics team, won the Ryan Family Award, recognising excellence from a Menzies staff member.
- Master of Public Health student Alexandra Sticpewich and Graduate Diploma in Public Health student Philip McMahon won the Val Asche Award for academic excellence in public health.
- Robyn Marsh (Menzies PhD scholar) received the Future Leaders Award which recognises young Australians who show strong leadership and potential.



Multi-award winner Associate Professor Amanda Leach



Stephanie Bell, awarded the Menzies Medallion for her significant contribution to health in the Northern Territory.

translating research in the community



Project Officers Lawurrpa Maypilama and Frances Knight from Menzies, join Arnhem Land Progress Aboriginal Corporation's Clare Brown and Doris Yittun from Galiwinku to present the 'Good Food' Dhanyia Basket, NT

Beyond its commitment to research excellence, Menzies sets its sights on solutions – using our research findings to kick-start and sustain positive change.

Formally, this is known as 'knowledge translation': the exchange, synthesis and ethically-sound application of knowledge derived from research to improve services and products, strengthen the health care system, and ultimately, improve health.

This snapshot highlights just a few of the many areas in which Menzies' knowledge has been transformed into practical, tangible outcomes.

Campaigning for child health and delivering effective youth services

The Australian Early Development Index (AEDI) Champions Program developed a range of culturally appropriate resources to support community understanding of the AEDI results. The AEDI is a national survey of children in their first year of school that measures how well they are developing. The Centre has run workshops in many places across the Territory to engage local communities in discussion about the importance of children getting off to a good start in life.

Similarly, the 'It's just so Important' community discussions developed by Centre for Child Development and Education researchers saw Aboriginal people engage parents in the 'early development story'. The importance of focusing on healthy brain development in early life is a new idea for many parents in remote communities and they were thirsty for this information.

Tracking food sales to improve nutrition support

Menzies' Keeping Track of Healthy Foods tool (RIST tool) has enjoyed steady uptake among nutritionists working in Indigenous health. Though initially designed to assist store managers, the resource has reportedly enhanced the capacity of community-based nutritionists, and dieticians – as well as those working in health strategy and support roles – to deliver tailored advice that improves food supply and diet. Because it provides real-time information on the quality of the food supply, in addition to feedback on how the food supply is tracking, the tool has been embraced by store committees and other members of remote communities, too.

The RIST tool generates reports on sales of key foods in remote stores. It also offers nutritional analysis of food sales, thus identifying the main sources of 'nutrients of concern': mainly sugar, saturated fat and salt. Menzies' nutrition team aims

to convert the tool into a web-based application to further expand the resource's benefit, utility and reach, and from 2012, the team hopes to offer training in the use of the tool.

Understanding trends in tobacco consumption in remote communities

Menzies' tobacco control research team monitored tobacco sales in 24 remote communities in a project funded by the Cooperative Research Centre for Aboriginal and Torres Strait Islander Health and National Health and Medical Research Council. This directly translated into health policy change. The Northern Territory Government (NTG) announced that tobacco monitoring now forms part of the requirements of all Tobacco Retail Licenses from 31 December 2011. This follows the trend set with the collection of alcohol wholesale data: a procedure that has been routine for the past decade.

Menzies will continue to assist and work with the NTG on the management and analysis of this tobacco wholesale data to describe trends in tobacco consumption and the impact of new tobacco control policies and activities. This routine monitoring of tobacco wholesale data is a world-first, an achievement that results from Menzies' close collaboration with policy makers, dating from the project's inception.

Supporting the delivery of quality Primary Health Care for Indigenous Australians

With the aim of raising the standard of health service delivery, One21seventy works with over 180 Indigenous primary health care services in the Northern Territory, Queensland, Western Australia, NSW and South Australia.

One21seventy continues the work of the highly successful Audit and Best Practice in Chronic Disease (ABCD) project – this addressed improvements within health centre systems. On completion of the research into the latter project's effectiveness, stakeholders requested continued access to its suite of tools and processes.

One21seventy now offers practical resources designed to boost health care delivery in the areas of child, maternal and mental health, as well as preventive care and vascular and metabolic syndrome. Resources include web-based data and information services, training, facilitation and evidence-based support systems that are regularly updated to reflect best practice standards.

Unravelling the Melioidosis story

With considerably more melioidosis cases reported in the last few years, our environmental research aims to improve melioidosis prevention measures by reducing the risk of exposure to the public of *Burkholderia pseudomallei*, the soil bacterium causing melioidosis. Menzies is particularly interested in the influence of human activity-related changes on the occurrence of *B. pseudomallei* in the environment of the Top End. By screening soil, plants and water at residential properties and construction sites, Menzies aim to discover which factors contribute to the persistence of *B. pseudomallei* in the environment and what remediation measures can be taken to decrease the load of *B. pseudomallei* in these areas. Our findings have directed changes in the Northern Territory's Centre for Disease Control's health messages and in media warnings that advise the public on how to decrease exposure to the melioidosis bacteria. The Menzies Infectious Diseases physician-researcher group also provides the Royal Darwin Hospital Infectious Diseases Department with clinical services. This has been pivotal in the substantial decrease in death rates among melioidosis patients treated at Royal Darwin Hospital.

our new buildings

Over the past year, Menzies has progressed its new multi-million dollar building project, which will enable us to continue our vital medical research in world class facilities.

The project includes a new building and an upgrade to our existing facility at Royal Darwin Hospital (RDH) and a new building on Charles Darwin University's (CDU) Casuarina campus. Menzies' new building project was jointly funded by the Australian Government, the Northern Territory Government and CDU.

The architects, Hames Sharley, designed two impressive, modern and ecologically sound buildings. At a cost \$45.4 million, the project will deliver across both campuses 5,275m² of new space; refurbishment of our existing John Mathews Building, creating capacity for 446 staff; and a 200-person auditorium on the RDH campus to support Menzies' teaching and learning activities.

The project's iconic and contemporary designs will allow Menzies to support the Australian Government objective of providing research facilities that are integrated with improving clinical care and with health workforce training.

Construction is expected to begin in the first half of 2012, with staff planned to move into the new buildings after September 2013.

The tremendous support and assistance provided by the Staff User Group, research heads and theme leaders was invaluable in assisting the architects to deliver designs that are truly iconic, tremendously flexible and functional.

This project will secure Menzies' long-term, productive future, and allow Menzies to continue to improve the health of Australians and those in our region.



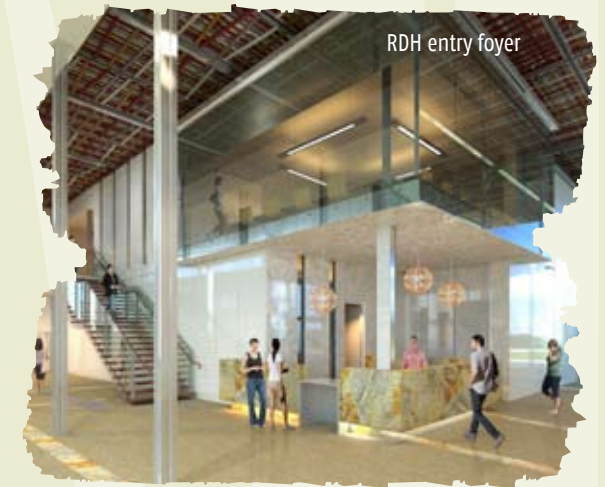
CDU main entrance external



RDH main entrance external



RDH landscape aerial



RDH entry foyer



CDU entry foyer



Former AFL footballer Dean Rioli joins Top End kids in support of the Rioli Fund for Aboriginal Health

Events 2011

A Tribute to Mr Magic

The inaugural 'A Tribute to Mr Magic' dinner was held at Kantilla's restaurant on 18 March 2011. Hosted by the Rioli Fund for Aboriginal Health, which raises funds for Menzies' child and mental health research, the night paid tribute to sporting legend Maurice Rioli. It was attended by valued sponsors and successfully raised funds for Indigenous health research.

Rally for Research

Menzies staff joined other scientists, doctors, nurses, patients and people from the Darwin community in attending the Rally for Research 'Discoveries Need Dollars' on 15 April 2011 at the Smith Street Mall. The rally opposed the Australian Government's plans to cut funding to the National Health and Medical Research Council by \$400 million in the May 2011 budget.

AGM 2011

The Menzies Annual General Meeting was held on 11 May 2011, attended by supporters and staff. Several awards were presented, including the Ryan Family Award, recognising excellence from a Menzies staff member and the Val Asche Award for academic excellence. A special presentation also took place recognising Sue Bradley's long-term philanthropic support for Menzies.

NAIDOC Week

NAIDOC week celebrates Aboriginal and Torres Strait Islander culture, providing the opportunity to recognise contributions made by Indigenous Australians in various fields. Menzies staff in Adelaide participated in a march for NAIDOC Week – as did staff in Darwin, where Professor Sven Silburn also gave a public update about the Centre for Child Development and Education's work.

Health Inequalities Address

Director of the International Institute for Society and Health and Medical Research Council Research Professor in Epidemiology at University College London (UCL), Professor Sir Michael Marmot addressed the Darwin public on 29 July 2011 at the city's entertainment centre. Sir Marmot presented findings from his report 'Fair Society, Healthy Lives', a review of health inequalities.

Teddy Bears' Picnic

Menzies School of Health Research staff attended the annual Teddy Bears' Picnic on 21 August 2011 at the Darwin Botanical Gardens. Hundreds of local parents and children came along, many of whom visited the Menzies' stand. This offered free health checks for teddy bears, ran a colouring-in competition and distributed information about Menzies studies into child health and nutrition.

Menzies Open Day

Kick starting National Science Week in Darwin, Menzies Open Day on 12 August 2011 lent years 10 to 12 students the opportunity to delve deeply into the world of tropical health research. Students attended workshops about snake bites, the bacterial disease melioidosis, malaria, tobacco control, sexual health and healthy living. They also toured our laboratory facilities and were briefed on career options for pursuing a future in health research.

Menzies Scientific Colloquium and the Menzies Medallion Presentation

The Menzies Scientific Colloquium 2011 was held at Charles Darwin University in Darwin on 16 September 2011. Leading medical researchers gave a series of lectures called 'Indigenous Voices on Indigenous Research'. Topics covered included Fetal Alcohol Spectrum Disorder, cancer and early childhood development. The event provided occasion to present Stephanie Bell, CEO of the Central Australian Aboriginal Congress, with the Menzies Medallion – the highest award offered by the Menzies Board.

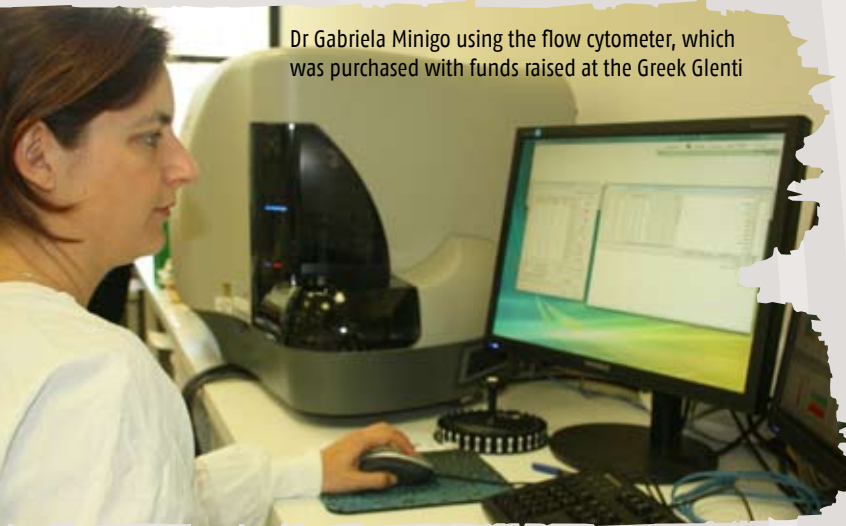
Chairman of Menzies Professor Simon Maddocks thanks the Honourable Sally Thomas AM for delivering the Menzies Oration



Menzies Oration

Menzies School of Health Research held its annual Oration on 9 November 2011 at the Darwin Entertainment Centre. Her Honour the Honourable Sally Thomas AM, Administrator of the Northern Territory, was this year's guest speaker. Her oration was entitled: 'Health, Crime and Unsung Heroes.' Her honour is best known for her role as Judge of the Supreme Court of the Northern Territory from 1992–2009 and then as Chancellor at Charles Darwin University. She became the 20th Administrator of the Northern Territory on 31 October 2011 and currently serves as a Menzies patron.

donors and supporters



Dr Gabriela Minigo using the flow cytometer, which was purchased with funds raised at the Greek Glenti

Major Fundraising Event

Greek Glenti 2011

Menzies thanks the Darwin community – particularly the Greek community – for their support at the 2011 Greek Glenti. Generous donations helped us raise almost \$50,000. These funds went towards the purchase of a flow cytometer, sophisticated equipment that better allows our researchers to examine cells that the body uses to fight infections.

Jonathan Munyarryun at Galiwinku, NT



Major Donors

Menzies is grateful to the following donors for their philanthropy.

Area 9 Pty Ltd	Mr. Ian Marett
Brilliant Kitchens	Mr. John Nikolakis
Channel 7 Children's Foundation	Mr. Steve Lobsey
Darwin Mining Club – Minerals Council of Australia	Mr. Tom Pauling
Darwin Olympic Soccer Club	Mrs. Heather Henderson
Dr. Brandon Carp	Mrs. Lynne Walker
Dr. Nicholas Ferris	Mrs. Margaret Wilson
Dr. Val Asche	Ms. Belinda Gibson
Financial Markets Foundation for Children	Ms. Margaret Brewster
Heart Foundation	Ms. Sheila Frey
Heart Kids	Myer Family Company
Hellenic Macedonian Association of North Australia	NextGen Net Pty Ltd
Maple-Brown Family Charitable Foundation	Richard's Crane Hire
Minerals Council of Australia	Royal Darwin Hospital Department of Health
Minter Ellison SA/NT Foundation	Sidney Myer Foundation
Mr. Andrew Israel	Sitzler Pty Ltd
Mr. Chris Gabardi	The Hon. Sally Thomas
Mr. David Metcalfe	WA Hawks Supporters Club (Inc)

Menzies wishes to thank the many individuals and communities who granted permission to use photographic images of themselves and their children throughout this publication.

key stakeholders



Williamson girls, Galiwinku, NT

Menzies would like to highlight four important stakeholders critical to our success – these names are derived from a long list of significant stakeholders.

Aboriginal and Torres Strait Islander communities and their organisations

Without the continued support of our community partners there would be no Menzies research. As we outlined in the plaque erected in honour of Menzies' 25th Anniversary to thank the Aboriginal and Torres Strait Islander communities of Australia, they are our "participants, researchers, advisors, board members and collaborators, but most of all our teachers and mentors". We particularly acknowledge our collaborations with the Aboriginal Medical Services Alliance of the NT (AMSANT).

The National Health and Medical Research Council (NHMRC)

The Commonwealth Government-funded NHMRC is by far Menzies' biggest source of funding. Menzies will continue to value the constructive and open relationship we hold with the NHMRC.

Charles Darwin University (CDU)

Menzies is a major partner of CDU. Menzies operates as the equivalent of a faculty of CDU, most of our PhD students enrol through CDU, and our higher education funding comes via CDU. We will continue to value the importance of our ties to CDU.

Northern Territory Government (NTG)

As the sole medical research institute headquartered in the Northern Territory, Menzies has a privileged relationship with the NTG. The NTG has provided an untied grant to Menzies every year since its inception. Over the last five years we have broadened our collaborations beyond the Department of Health to include several other departments. We will continue as a trusted and valued, but independent, collaborator with the NTG.



Menzies staff join a NAIDOC week march through Adelaide to honour Indigenous cultures



The Hon Paul Henderson MLA, Chief Minister of the Northern Territory joins former AFL Player Dean Rioli and Director of Menzies Professor Jonathan Carapetis at the Rioli Fund Annual Dinner, Darwin NT



Menzies' Director Professor Jonathan Carapetis and CDU Vice-Chancellor Professor Barney Glover

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Scholarship recipients

Kassandra Anderson: Empowering Indigenous mental health clients: self efficacy and better outcomes. **University Postgraduate Research Scholarship.**

Brooke Barnett: What elements are fundamental in the transformative effect of music participation, to positive personal, spiritual, social, educational and community development for multicultural youth? **University Postgraduate Research Scholarship.**

Michael Binks: Vitamin D and acute lower respiratory tract infection in Indigenous children. **Australian Academy of Science – Douglas and Lola Douglas Scholarship in Medical Science and National Health and Medical Research Council: Training Scholarship for Indigenous Australian Health Research.**

Dr Anita D'Aprano: TRAK Study – talking about raising Aboriginal kids. **Lowitja Institute Scholarship.**

Delfim Da Costa Ferreira: The evaluation of the availability of essential medicines (EM) at health facility level and assessment of the use of medicines at community level (SISCa post) in Timor-Leste. **Charles Darwin University /Menzies PhD Health Scholarship for Timor-Leste.**

Dr Jane Davies: The epidemiology and disease burden of Hepatitis B in the Northern Territory of Australia. **Sidney Myer Health Scholarship and National Health and Medical Research Council Training Scholarship for Indigenous Australian Health Research.**

Karen Dempsey: A data linkage study of road traffic crashes in the Northern Territory. **Bracher Family Research Scholarship.**

Megan Ferguson: To describe the impact of improved affordability on food choices made by Indigenous customers in remote community stores in Australia. **National Health and Medical Research Council Training Scholarship for Indigenous Australian Health Research.**

Julie Fraser: Appropriate models for education in remote Indigenous communities in the Northern Territory. A case study of the development of colleges in remote communities in the Northern Territory. **Lowitja Institute Scholarship.**

Dr Matthew Grigg: Disease burden, risk factors and treatment of human *Plasmodium knowlesi* infection in Sabah, Malaysia. **University Postgraduate Research Scholarship.**

Kim Hare: Bacteriology of respiratory infections in Australian Indigenous children: **National Health and Medical Research Council Gustav Nossal Dora Lush Biomedical Scholarship.**

Sarah Ireland. Rosaries, ovaries and the rainbow serpent: Aboriginal women's experiences of reproduction and fertility in Wadeye. **Lowitja Institute Scholarship.**

Dr Hugh Kingston: Mechanisms of microvascular dysfunction in severe malaria. **Charles Darwin University Prestigious International Research Tuition Scholarship and University Postgraduate Research Scholarship.**

Kishan Kariippanon: Exploring and evaluating the use of social networking, social media and emergent technology in youth health in the NT. **Australian Postgraduate Award.**

Jana Lai: Investigating the effect of pneumococcal vaccination on respiratory pathogen carriage in Vietnamese children. **Australian Postgraduate Award and 2012 Endeavour Research Fellowship.**

Dr Paul Lawton: The incidence and outcomes of chronic kidney disease amongst Indigenous Australians. **National Health and Medical Research Council: Training Scholarship for Indigenous Australian Health Research.**

Dr I-Lynn Lee: Diabetes in pregnancy in Northern Territory Women: **Australian Postgraduate Award.**

Robyn Marsh: Culture-independent analysis of bacteriology associated with acute media in Indigenous Australian Children. **Future Leaders Research Award.**

Leisa McCarthy: Exploring Indigenous Australians' perceptions of health in relation to health promotion activities and type 2 diabetes. **Menzies Foundation Memorial Research Scholarship and National Health and Medical Research Council: Public Health Postgraduate Research Scholarship.**

Evan McRobb: The application of whole genome sequencing to *Burkholderia pseudomallei*: The gateway to diversity and geographical understanding. **University Postgraduate Research Scholarship.**

Anna Nicholson: What works to reduce Aboriginal and Torres Strait Islander smoking? A national evaluation of tobacco initiatives for Aboriginal and Torres Strait Islander people. **Sidney Myer PhD Scholarship.**

Shirley Nirrurranydji: Dhunupa dhawu. **Perpetual Scholarship and Lowitja Institute Research/Project Scholarship.**

Susan Pizzutto: Immune function in children with chronic suppurative lung disease. **National Health and Medical Research Council Training Scholarship for Indigenous Australian Health Research.**

Dr Bo Remenyi: Standardisation of diagnostic protocol for early detection of Rheumatic Heart Disease: closing the gap in Indigenous health outcomes. **Lowitja Institute Scholarship.**

Anna Szava: Why not family food? Local views on the factors affecting child malnutrition in Humbo Woreda, south west Ethiopia. **World Vision Research Scholarship.**

Megan Whitty: Prevention of alcohol related crime and trauma: brief interventions in routine care. **Australian Postgraduate Award.**

Lisa Whop: A national data linkage approach to assess the effectiveness of cervical screening for Aboriginal and Torres Strait Islander women compared with other Australian women. **Sidney Myer Health Scholarship.**

Grennady Wirjanata: Phenotypic characterisation of chloroquine resistance in *Plasmodium spp.* **International Postgraduate Research Scholarship.**

Income Statement for the year ended 31 December 2011

	2011	2010
	\$	\$
Income from continuing operations		
Australian Government Financial Assistance	18,769,893	20,275,487
NT Government Funding	5,934,458	6,223,675
Fees and Charges	1,780,421	2,244,855
Investment Income	2,355,122	2,158,578
Consultancy and Contract Research	6,837,084	4,692,057
Gain (Loss) on Disposal of Assets	-	5,167
Other Revenue	2,257,357	1,742,085
Total Revenue from Continuing Operations	37,934,335	37,341,903
Total Income from Continuing Operations	37,934,335	37,341,903
Expenses from Continuing Operations		
Employee Related Expense	22,383,263	20,895,003
Depreciation and Amortisation	375,635	341,438
Repairs and Maintenance	585,780	537,742
Bad and Doubtful Debts	-	-
Other Expenses	10,801,008	10,789,037
Total expenses from Continuing Operations	34,145,685	32,563,219
Operating Result from Continuing Operations	3,788,650	4,778,684
Operating Result Attributable to Members of MSHR	3,788,650	4,778,684

Statement of Comprehensive Income for the year ended 31 December 2011

	2011	2010
	\$	\$
Operating Result for the Year	3,788,650	4,778,684
Gain (Loss) on Revaluation of Investments	(2935)	(24,951)
Total Comprehensive Income	3,785,715	4,753,733
Total Comprehensive Income Attributable to the Members of MSHR	3,785,715	4,753,733

Statement of Financial Position as at 31 December 2011

	2011	2010
	\$	\$
Assets		
Current Assets		
Cash and Cash Equivalents	38,588,253	36,712,746
Trade and other Receivables	2,449,223	3,863,779
Other Financial Assets	294,946	-
Other Non-Financial Assets	2,704,454	624,336
Total Current Assets	44,036,876	41,200,861
Non-Current Assets		
Property, Plant and Equipment	916,807	848,234
Other Financial Assets	24,455	27,391
Work In Progress	2,171,402	-
Total Non-Current Assets	3,112,664	875,625
Total Assets	47,149,540	42,076,486
Current Liabilities		
Trade and Other Payables	1,323,566	632,586
Account Held in Trust	-	-
Provisions	2,755,273	2,310,107
Other liabilities	42,366	87,076
Total Current Liabilities	4,121,205	3,029,769
Non-Current Liabilities		
Provisions	413,692	217,790
Total Non-Current Liabilities	413,692	217,790
Total Liabilities	4,534,897	3,247,558
Net Assets	42,614,643	38,828,928
Equity		
Reserves	3,848,667	3,475,969
Retained surplus	38,765,974	35,352,959
Total Equity	42,614,643	38,828,928

Statement of Changes in Equity for the year ended 31 December 2011

	Reserves (Note 20)	Retained Surplus (Note 21)	Total
	\$	\$	\$
Balance at 1 January 2010	3,159,484	30,915,711	34,075,194
Profit or Loss	-	4,778,685	4,778,685
Net Revaluation Loss on Investments	(24,951)	-	(24,951)
Total Comprehensive Income	3,134,533	35,694,396	38,828,929
Transfers	341,437	(341,437)	-
Balance at 31 December 2010	3,475,970	35,352,959	38,828,929
Balance at 1 January 2011	3,475,970	35,352,959	38,828,929
Profit or Loss	-	3,788,650	3,788,650
Net Revaluation Loss on Investments	(2,935)	-	(2,935)
Total Comprehensive Income	3,473,035	39,141,608	42,614,645
Transfers	375,635	(375,635)	-
Balance at 31 December 2011	3,848,667	38,765,974	42,614,646

Statement of Cash Flows for the year ended 31 December 2011

	2011	2010
	\$	\$
Cash Flow from Operating Activities		
Australian Government Grants	18,767,675	18,956,902
NT Government Funding	6,139,977	6,003,374
Receipts from Student Fees	1,780,421	2,244,855
Interest Received	2,355,122	2,158,220
Consultancies and Contract Research	8,052,958	3,301,134
Other Receipts	255,895	1,918,963
Payments to suppliers	(11,118,739)	(11,247,375)
Payments to employees	(21,742,196)	(20,421,880)
Net Cash Provided by Operating Activities	4,491,115	2,914,193
Cash Flow from Investing Activities		
Share Dividends Received	-	-
Proceeds from Sale of Plant and Equipment	-	9,591
Payments for Work In Progress	(2,171,402)	-
Payments for Property, Plant and Equipment	(444,207)	(204,307)
Payment for Financial Assets	-	-
Net Cash Inflow (Outflow) from Investing Activities	(2,615,609)	(194,716)
Net Increase (Decrease) in Cash and Cash Equivalents	1,875,506	2,719,477
Cash and Cash Equivalents at the Beginning of the Financial Year	36,712,747	33,993,268
Cash and Cash Equivalents at End of the Year	38,588,253	36,712,747

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