Menzies Research Institute
- University of Tasmania
At the Menzies Research Institute our success as one of Australia’s leading population health research organisations is built on Tasmania’s community and its distinctive characteristics:

- its stable population and extensive genealogical records;
- the small island geography; and
- a community that participates so freely as study participants, volunteers or supporters.

Our Past

From modest beginnings in 1988, the Menzies Research Institute quickly gained a reputation for its ground-breaking work into the link between babies’ sleeping position and sudden infant death syndrome (SIDS).

Since then, the Institute has developed into an established centre for population health research, with a global reputation in epidemiology and expanding roles in genetics and clinical epidemiology and biomedical research. Our past successes include:

- highlighting the importance of vitamin D in the development of bones in children and adults;
- evidence of the link between early life sun exposure and susceptibility to multiple sclerosis;
- discovering genes that cause disease; and
- showing the link between infant bedding and childhood asthma.

Today

Today our research efforts focus on preventing a range of diseases including cancer, multiple sclerosis, cardiovascular disease, diabetes, osteoporosis and epilepsy. Our aim is to explore the complex link between environmental and genetic causes of disease.

We are undertaking nationwide studies, and collaborating with interstate and international researchers.

The Institute’s work continues to extend throughout Australia and the western Pacific and southeast Asian regions.

Our Future

Our plan for the future is one of expanded research programs and increased collaborative links throughout Australia and the world to take advantage of new opportunities.

We will undergo an exciting transformation in coming years, with our research activities being expanded to focus on both clinical and basic science. The depth and quality of the research at the Institute will be enhanced and strengthened through an ongoing strategy for growth.

Thanks to the generosity of the Tasmanian community we will continue to find answers to local health problems that have global significance.

A Tasmanian Icon

The Tasmanian Government proudly supports the work of the Institute through the State Government’s Icons Program. The Icons Program showcases the very best that Tasmania has to offer, nationally and internationally.

University of Tasmania

The Menzies Research Institute is an institute of the University of Tasmania.
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The past year has been one of significant change for the Menzies Research Institute with the implementation of new governance arrangements and the appointment of a new Director.

Council of the University of Tasmania introduced new governance arrangements for the Institute effective 1 December 2004, including a new Board. Council determined that the Institute should operate as a corporate entity established within the legal framework of the University rather than as a separate legal entity. Nevertheless, it intended that the governance relationship between the Institute and the University would largely mimic that which would occur if the Institute was a separate legal entity.

The Board is responsible for vision, strategy and general oversight of overall Institute performance, for which it is accountable. The Director is empowered to manage the operations of the Institute in conformity with agreed plans, policies and procedures, and is accountable to the Board for operational performance.

Being an Institute of the University of Tasmania, the undertakings of the Menzies Research Institute are aimed at achieving the goals, strategies and performance measures of the University under its EDGE (excellence, distinctiveness, growth and engagement) agenda.

The key priorities of the Board in 2005 were to recruit a new Director and to resolve the future structure, activities and direction of the Institute, taking into consideration the Vice-Chancellor’s vision for the Institute, the objectives of the Institute, the University’s EDGE agenda and the views of stakeholders.

The initial focus of the Board was the recruitment of a new Director. We were delighted to appoint Professor Simon Foote who was able to commence at the Institute on a half-time basis in May 2005. Professor Foote will be full-time in early 2006. Professor Foote spent the last ten years at the Walter and Eliza Hall Institute of Medical Research in Melbourne where he was the Joint-Head of the Genetics and Bioinformatics Division. He has a strong research record in genetics and in the susceptibility to disease and is no stranger to the work of the Menzies Research Institute. The appointment of an eminent researcher like Professor Foote is an important step for the expansion of the Institute, which is well equipped to expand its research activities. The Board is confident that Professor Foote’s track record, experience and national and international links will lead the Institute in this direction.

I would like to thank Associate Professor Alison Venn, the Institute’s Deputy Director, for her commitment to the Institute and willingness to be Acting Director while the Director vacancy was filled. Associate Professor Venn provided excellent leadership and direction to the Institute over this period of time.

“The National Health and Medical Research Council announced that our multiple sclerosis research was one of the ten most successful health and medical research studies in the funding period 1999 to 2003.”
The matter of how health science research will be organised at the University of Tasmania has been the subject of discussion and consideration for several years. Different models have been proposed. In late 2004 it was determined that the Institute would be the core research institute for biomedical research.

A key priority of the Board and Director for the second half of 2005 was to progress this strategy. Under the leadership of Professor Foote a strategy for building health science research around the Menzies Research Institute has been developed and in principle agreement has been gained from various researchers and stakeholders for the strategy to be implemented. It is anticipated that research staff from the Faculty of Health Science and other areas of the University will join the Institute in 2006.

2005 was a successful year for our researchers. The Board is particularly pleased with their success in obtaining research grants and the number of scientific achievements during 2005. The National Health and Medical Research Council announced that our multiple sclerosis research was one of the ten most successful health and medical research studies in the funding period 1999 to 2003. The research, which was carried out in Tasmania in collaboration with researchers from three interstate research organisations, identified two gene regions that may be responsible for causing multiple sclerosis.

“The Institute received over $2 million in competitive grant income, including a new $288,000 grant from the Australian Research Council to carry out dyslexia research.”

The Institute received over $2 million in competitive grant income, including a new $288,000 grant from the Australian Research Council to carry out dyslexia research. Professor Foote was awarded over $500,000 as a Howard Hughes Medical Institute International Research Scholar to fight the debilitating parasitic disease, malaria.

Thank you to the new Board that has brought a strong set of capabilities and has quickly developed into a very effective team.

**Dr Dan Norton**
Chairman

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**The Board**

**The Board is the governing body of the Menzies Research Institute and is appointed by the Council of the University of Tasmania.**

Dr Dan Norton (Chairman)  Mr Damon Thomas
Dr David Boadle  Professor Jonathan West
Professor Simon Foote  Professor Judith Whitworth
Sir Guy Green
It gives me great pleasure to deliver my first report as Director of the Menzies Research Institute. I took up the reins as Director in early May 2005.

Thank you to Associate Professor Alison Venn who held the position of Acting Director for more than 12 months. Associate Professor Venn was acting in the position at a crucial time for the Institute, with the appointment of a new Board, the introduction of new governance arrangements and the planning of a new building.

“**My field of expertise is that of genetics and I will be continuing my work on the genetics of Multiple Sclerosis and on the host response to infectious disease.**”

It gives me considerable pleasure in being appointed to this position as I have had a long association with the Institute. The Institute is one of Australia’s foremost epidemiological research organisations and has carried out an impressive body of work under the leadership of Professor Terry Dwyer.

At the announcement of my appointment in May, I commented that the Institute faces a bright future. With a new building planned for the Institute in 2008, there are also plans to expand and strengthen the research areas at the Institute.

**Highlights for 2005 include:**

- A $US100,000 grant from Atlantic Philanthropies to cooperate with Vietnamese health institutions in building their capacity on the area of non-communicable disease surveillance.
- Research into Multiple Sclerosis, carried out by the Menzies Research Institute in collaboration with the Walter Eliza Hall Institute, the Howard Florey Institute and the University of Melbourne, was recognised as one of the ten most successful health and medical research studies funded by the National Health and Medical Research Council (NHMRC) during 1999 - 2003.
- The Institute was awarded more than one million dollars in funding for new research from the NHMRC in the areas of age-related brain changes and epilepsy research.
- Research conducted by Menzies’ researchers, published in the American Journal of Public Health, has found that the sleeping environment of infants, in particular the type of bedding with which a baby sleeps, is associated with wheezing and asthma in children at seven years.

My field of expertise is that of genetics and I will be continuing my work on the genetics of multiple sclerosis and on host response to infectious disease. The University has built a new, temporary laboratory on the Sandy Bay Campus where my research will take place until the new building is complete.

The Board has been extremely supportive during my first year and we are lucky to have Professors Jonathon West and Judith Whitworth as Directors. Jonathon brings a wealth of experience in commercialising research and has come to Tasmania from Harvard University. Judith is the director of the acclaimed John Curtin School of Medical Research at...
the Australian National University in Canberra. Both will strengthen an already impressive Board of Directors.

Crucial to the success of our research is the committed support of the Tasmanian community and beyond. On behalf of all the staff at the Menzies Research Institute, I would like to thank our many supporters, including study participants, volunteers and those who provide financial support. These funds are essential to the continued success of the Institute and are used to start new projects and to gather sufficient preliminary results to allow for successful grant applications to the National Health and Medical Research Council.

Furthermore, thank you to the University of Tasmania, Menzies Foundation, Tasmanian Government and Atlantic Philanthropies for their financial support which is critical to the ongoing administration and research of the Menzies Research Institute.

Finally, I would like to recognise the work of the Menzies Research Institute staff. The Menzies is made up of enthusiastic and committed people who genuinely have an interest in improving the health of people locally and beyond. I would like to thank all the staff for making me feel welcome as Director of the Menzies and supporting me throughout my first year. I am fortunate to have been selected as Director of the Menzies and I look forward to continuing to work with you all in the future.

Professor Simon Foote
Director
The announcement of the appointment of Professor Simon Foote as the new Director of the Menzies Research Institute was made in May 2005 by the Vice-Chancellor of the University, Professor Daryl Le Grew and Chairman of the Menzies Research Institute, Dr Dan Norton.

Before this appointment to the Menzies Research Institute, Professor Foote spent ten years at the Walter and Eliza Hall Institute of Medical Research (WEHI), most recently as Joint-Head of the Genetics and Bioinformatics Division. He has a strong track record in genetics research, particularly in susceptibility to disease.

Medically trained at the University of Melbourne and the Royal Melbourne Hospital, Professor Foote’s PhD thesis was on genes that control drug resistance in the malarial parasite. He completed his postdoctoral studies at the Whitehead Institute at the Massachusetts Institute of Technology, where he played a pivotal role in early work involving the Human Genome program. His research at WEHI involved how humans respond to infectious, epidemic-prone diseases, such as malaria.

During 2005, Professor Foote was the recipient of several major funding allocations which will contribute to the expansion of the scope of the Institute’s research activities.

A project grant from the National Health and Medical Research Council, awarded to Professor Foote and colleagues, will enable the Institute to take its epilepsy research in a new direction. New research will identify new biologic pathways which may be interrupted with drugs to prevent seizures in people with epilepsy.

There is a wide range of drugs available to treat epilepsy but 30-40% of patients do not respond well to any of these drugs and continue to have seizures. Genetic studies will identify genes which may be used as potential targets for new therapies. The study may also identify new biological pathways which should expand the use of future anti-epileptic drugs.

In July, Professor Foote was named a Howard Hughes Medical Institute (HHMI) International Research...
Scholar and awarded US$500,000 over five years to fight the debilitating parasitic disease, malaria.

The funding will allow the Menzies Research Institute to expand its genetic research program to include malaria, which is the third most lethal disease in the world. Professor Foote’s work aims to reveal how a person’s immune system fights malaria. He will do this by infecting laboratory mice that have rare genetic mutations with malaria, and studying the mutations that allow the animals to survive infection, in order to contribute to the global understanding of host response to malaria and lead to the development of new, more effective anti-malarial therapies.

The appointment of an eminent researcher like Professor Foote is an important step for the continuing success of the Menzies Research Institute. Professor Foote is well qualified to build on the Institute’s past success and lead the Institute forward through the next exciting phase of growth and development.

“There is a wide range of drugs available to treat epilepsy but 30-40% of patients do not respond well to any of these drugs and continue to have seizures. Genetic studies will identify genes which may be used as potential targets for new therapies.”
The Director has overall responsibility for the Institute’s research and administrative activities.

An Executive Management Group facilitates input to decision making and provides advice to the Director. This group performs high-level policy and decision-making, and comprises the Director, Deputy Director, Head of the Musculoskeletal Unit and the General Manager.

Research activities are focused on a number of key research areas that build on the Institute’s established expertise and future potential. A multidisciplinary unit is formed in each research area, comprising a Unit Head, project and support staff. Unit Heads are responsible for managing the activities of their unit, and contribute to the broader decision-making process with regards to research issues.

The Institute conducted research in six principal areas in 2005:
- Cancer (coordinated by Associate Professor Alison Venn)
- Cardiovascular Diseases/Diabetes (including World Health Organisation Collaborating Centre) (coordinated by Associate Professor Alison Venn)
- Genetics (coordinated by Professor Simon Foote and Dr Jo Dickinson)
- Musculoskeletal (coordinated by Professor Graeme Jones)
- Immune Disorders and Neuro Epidemiology (coordinated by Professor Anne-Louise Ponsonby)
- Biostatistics (coordinated by Dr Leigh Blizzard)

Research activities and the collection and collation of information for disease registers continually evolve to build on the Institute’s established expertise and future potential.

Supporting the research programs is the Administrative Services Unit, including information technology, human, financial and physical resource management. Business Development activities promote the Institute’s research and facilitate the development of beneficial relationships with government, industry and the general public. Honorary researchers, scientific advisers and volunteers also provide invaluable support.
Research

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Cardiovascular disease (CVD) is Australia’s greatest health problem. It kills more people than any other disease and affected 3.5 million Australians in 2004-05. It contributes to significant illness, disability, poor quality of life and premature death, and is the most expensive disease group in Australia in terms of health expenditure.

Researchers at the Menzies Research Institute are conducting research to better understand the causes of CVD and diabetes, and to contribute to the development of effective preventive strategies.

Childhood Determinants of Adult Health (CDAH)

Associate Professor Alison Venn
Professor Terry Dwyer

Staff:
Verity Cleland, PhD Student
Joan Clough, Administration Assistant
Beverley Curry, Recruitment Coordinator (Maternity Leave)
Marita Dalton, Project Manager
Julia Garry, Resources Officer
Dr Hanni Gennat, Junior Research Fellow
Ildiko Kun-May, Administration Assistant
Sheryl Lunt, Research Assistant
Costan Magnussen, PhD Student
Pam McDonald, Recruitment Officer
Charlotte McKercher, PhD Student
Troy Robertson, Database Administrator

Dr Mike Schmidt, Research Fellow
Nicola Stephens, Recruitment Coordinator (covering Maternity Leave)

The Childhood Determinants of Adult Health (CDAH) study involves a follow-up of 8,484 children who participated in the 1985 Australian Schools Health and Fitness Survey when they were aged 7 to 15 years, and aims to investigate how much lifestyle and biological factors in childhood affect the risk of coronary heart disease and diabetes in adulthood. The study is following up participants as young adults aged 25-35 years, with plans for further follow-up in future decades.

Collaborators:
Professor David Celermajer, Heart Research Institute and Department of Cardiology, Royal Prince Alfred Hospital, Sydney.
Professor George Patton, Centre for Adolescent Health, Melbourne.
Professor Olli Raitakari, Medical Faculty of University of Turku, Finland.
Professor Paul Zimmet, International Diabetes Institute, Melbourne.

Funding bodies:
National Health and Medical Research Council
National Heart Foundation
Tasmanian Community Fund

Major sponsor:
The Health Food Company
In-kind support:
ASICS
Banjos
Blockbuster Videos
Target Australia

Achievements in 2005:
CDAH fieldwork continued in 2005 with study participants attending clinics for measurements of their health and fitness. The year started with clinics in Darwin before the team headed to Townsville, Rockhampton and then southern Queensland. In the latter part of the year, fieldwork was also carried out in New South Wales and the Australian Capital Territory, with a total of 1,257 participants attending clinics throughout 2005. Western Australia is now the only state yet to participate in fieldwork – this is scheduled for early 2006.

Successful negotiations were carried out with pathology companies in the Northern Territory, Queensland and New South Wales to enable collection and processing of blood samples from study participants who were unable to attend full clinics in those states.

An analysis of early findings from the study confirmed that obese children were much more likely to be obese as adults than healthy weight children. However, the majority of obese young adults at follow-up were a healthy weight in childhood.

These findings highlight the importance of obesity prevention efforts beyond the childhood years.

Non-communicable disease surveillance in Viet Nam

Staff:
Tim Albion, IT Systems Support
Dr Leigh Blizzard, Statistical Support
Catrina Boon, Survey Support
Professor Terry Dwyer
Jayne Fryer, Statistical Support
Dr Robert Granger, WHO Coordinator

As a World Health Organisation (WHO) coordinating centre for training in non-communicable disease (NCD) surveillance programs, the Institute is responsible for assisting countries in the Western Pacific and South East Asia regions in the planning and implementation of programs for the prevention and control of cardiovascular and other NCD’s.

Collaborators:
Dr Vuong Anh Duong, Ministry of Health, Viet Nam
Dr Gauden Galea, World Health Organisation

Funding bodies:
The Atlantic Philanthropies

Achievements in 2005:
Menzies Research Institute staff provided support for a pilot survey in Can Tho in January 2005, which was an outcome of a training workshop in NCD surveillance for researchers at the Can Tho University of Medicine and Pharmacy in the Mekong Delta region of Viet Nam in 2003.

The survey formally started in April and was successfully completed in October. Almost 2,000 persons were surveyed. The data have been processed and preliminary results from analyses made available. A data analysis workshop was conducted in December. Dr Au Bich Thuy was a key coordinator of the survey, and in 2005 was awarded a scholarship to undertake a PhD with the Institute beginning in 2006.

The Institute is also involved in assisting the Viet Nam Ministry of Health to establish the infrastructure for a national NCD surveillance system. The second of two NCD workshops was held in Hanoi during November 2005.

Dr Robert Granger also travelled to Viet Nam in July to explore with WHO and Ministry of Health representatives the possibility of collaborating on a new project to establish infrastructure for a NCD office and surveillance system. A funding proposal was developed and submitted to Atlantic Philanthropies, and approved in December to the value of US$2 million.

Web-based archive for STEPS data

Staff:
Dr Robert Granger, WHO Coordinator
Tim Albion, IT and Database Development Support

As a collaborating centre with the World Health Organisation, the Institute has played a pivotal role in the development of the World Health Organisation (WHO) non-communicable disease surveillance systems known as STEPS.
STEPS is a standardised approach promoted by WHO for measuring the prevalence of non-communicable disease risk factors in populations.

The Institute was requested by the WHO to make modifications to STEPS resources for data management, data analysis and data reporting.

The Institute is formulating a web-based system for storing and accessing data that have been generated from STEPS surveys. This system will be useful for the countries within the Western Pacific, and with modification, will have application in Viet Nam.

**Collaborators:**
Dr Gauden Galea, World Health Organisation

**Funding bodies:**
World Health Organisation

**Achievements in 2005:**
An extension of this project to mid-2005 allowed the development of a web based query engine to complement the web-based storage system. The system has now been fully developed and handed over to WHO as a working prototype.

**Salt Skip Program**

**Staff:**
Dr Trevor Beard, Honorary Research Fellow

The comprehensive literature of the Salt Skip Program has been making it easier for people to follow the Australian Dietary Guidelines, with special attention to the salt guideline. The salt guideline is the most difficult to follow, and is therefore the most neglected. In 2004, Dr Trevor Beard published the book Salt Matters: a consumer guide (Melbourne, Lothian Books, 2004).

**Collaborators:**
Eat Well Tasmania
Queensland Hypertension Association

**Achievements in 2005:**
Sales of Dr Beard’s book reduced the need for personal, one-to-one counselling in 2005. Dr Beard took the opportunity in December to close the appointment book at the Menzies Clinic and devote more time to the new website www.saltmatters.org and the new email discussion list, which can be joined by sending a blank email to saltmatters-subscribe@ozdocit.org.

When the email discussion list opened in September it was an immediate success, and has been receiving glowing tributes from many frustrated shoppers Australia-wide who have until now had great difficulty in finding the low salt foods that they need. It is believed to be the world’s first discussion list to be set up for this purpose.

In October, Dr Beard became a foundation member of WASH Australia (Australian Division of World Action on Salt and Health), which will be applying pressure to the food industry to reduce the high salt content of all processed foods and take steps to increase the availability of low salt foods that comply with the national Dietary Guidelines and The Australian and New Zealand Food Standards Code.

At the end of 2005 Dr Trevor Beard was named 2006 Tasmanian Senior Australian of the Year for the contribution that the Salt Skip Program has made to public health in Australia.

**Pacing the Police**

**Staff:**
Julia Garry, Administration Assistant
Dr Hanni Gennat, Junior Research Fellow
Pam McDonald, Research Assistant
Elaine Prenter, Research Assistant
Shalee Richardson, Research Assistant

The Menzies Research Institute and the Department of Police and Public Safety (DPPS) have formed a unique community business partnership that is promoting physical activity within Tasmania Police ranks and the general community. The partnership, known as “Pacing the Police”, allows the Menzies
Research Institute to build on its research expertise in the use of pedometers that are worn by police officers and monitored by researchers.

**Collaborators:**
Department of Police and Public Safety

**Achievements in 2005:**
The ongoing partnership between the DPPS and the Institute saw the completion of the first phase of data collection in 2005. A total of 172 employees of the DPPS attended a “Pacing the Police” clinic, where they had their weight, height, waist circumference, hip circumference, and blood pressure measured. Participants completed questionnaires about their physical activity and wore a pedometer for 14 days after their appointment, recording their total steps each day. They were also provided with a booklet, *Steps to Better Health*, which offers tips and guidelines for increasing physical activity. Participants were later provided with a written report detailing their results and how these may be interpreted.

A summary baseline report of aggregate results was provided to the DPPS in May. Phase Two of data collection commenced in December with the aim of completion by March 2006. A final report comparing baseline and follow-up results is expected to be submitted to the DPPS in mid-2006.
The Menzies Research Institute utilises Tasmania’s unique population characteristics to conduct research in musculoskeletal epidemiology, with a particular emphasis on fractures, osteoporosis and osteoarthritis.

Tasmanian Older Adult Cohort (TasOAC) Study
Professor Graeme Jones
Dr Changhai Ding

Staff:
Catrina Boon, Project Coordinator
Pip Boon, Research Nurse
Stella Foley, PhD student
Rose Ford, Radiographer
Margie Green, Research Nurse
Rowena Jacklyn, Research Nurse
Dale Pitt, Administrative Assistant
Rob Warren, PhD student
Guangju Zhai, PhD Student

TasOAC has recruited over 1,000 males and females aged 50-79 years of age through the current electoral roll for southern Tasmania to determine, amongst other things:

- The use of Magnetic Resonance Imaging (MRI) as an assessment technique that predicts the development and/or progression of osteoarthritis;
- Whether physical activity is protective against the development and/or progression of osteoarthritis; and
- Whether bone area change is a factor in the development of osteoarthritis.

In addition, the range of measurements being collected in this cohort will allow for many other hypotheses to be tested, and it is likely that other diseases such as osteoporosis, stroke, ischaemic heart disease, diabetes and cancer will be considered.

Collaborators:
Associate Professor Flavia Cicuttini, Monash University, Melbourne
Dr Patrick Garnero, Synarc, Lyon, France

Funding bodies:
National Health and Medical Research Council
Arthritis Foundation of Australia
Tasmanian Community Fund
University of Tasmania Institutional Research Grants Scheme
Masonic Centenary Medical Research Foundation

Achievements in 2005:
Results published from this study in 2005 found that bone marrow lesions and cartilage defects in the knee are strongly related to pain, independent of other factors including radiographic knee osteoarthritis. This finding provides new insight into prevention and management of knee pain.

Phase 2 of the TasOAC study commenced in November 2004. Four hundred and seventy of 1,000 interviews were completed by the end of 2005. Due to the replacement of the MRI machine at the Royal Hobart Hospital and variation between the old and the new machines, this study can no longer take MRI knee scans. As a result, 200 of the remaining subjects have been asked to have a hip scan at
Calvary Hospital as well as completing the other measures.

Support from a number of funding bodies in 2005 will enable researchers to examine the associations of blood inflammatory biomarkers, bone turnover biomarkers and vitamin D levels with the development and/or progression of osteoarthritis in the TasOAC study.

The T-Bone Study
Professor Graeme Jones
Professor Anne-Louise Ponsonby

Staff:
Pip Boon, Research Officer
Jenny Cochrane, Data Manager
Charlotte McKercher, Research Officer
Dr Charlotte Whitelaw, Junior Research Fellow

How much bone develops during early life has a role in preventing osteoporosis in later life, as well as preventing fractures during childhood. The T-Bone study aims to identify factors associated with the development of healthy bones in children. It is studying the role of early life factors (e.g. mother’s diet during pregnancy, smoking during pregnancy and breastfeeding), as well as factors at eight and 16 years of age (e.g. physical activity, sun exposure and vitamin D levels).

At the same time as these measures were taken, research nurses collected information for a study into asthma and allergy in children. For more information refer to “Fetal and infant determinants of childhood asthma” on page 22.

Collaborators:
Dr Andrew Kemp, Discipline of Paediatrics and Child Health, University of Sydney and Children’s Hospital at Westmead, Sydney

Funding bodies:
National Health and Medical Research Council
Financial Markets for Children Foundation

In-kind support:
Betta Milk
Blockbuster Video
Putters Adventure Golf

Achievements in 2005:
By the end of 2005, 415 Tasmanian teenagers had participated in clinics, finalising the collection of data for this study. All participants underwent ultrasound-based skeletal measurements of the wrist used to estimate their bone maturity and density. Further assessment of bone density was assessed at the heel using ultrasound and the hip and spine using the DEXA scanner. Other data, such as physical activity, dietary assessment, sun exposure, asthma, eczema, allergy and previous fractures together with blood and urine specimens was also collected from the group. Data analysis is now underway.

Cartilage volume study
Professor Graeme Jones
Dr Changhai Ding

Staff:
Catrina Boon, Research Nurse
Guangju Zhai, PhD Student

At present, we do not know a lot about what determines risk of osteoarthritis (OA) in later life. Participants in this study were the adult children of patients with knee cartilage problems, including those who have had a knee replacement for OA of the knee, have reduced cartilage and/or other knee problems, and matched control subjects. This study has the potential to identify persons at high-risk of OA in later life, as well as methods of modifying risk.
Collaborators:
Associate Professor Flavia Cicuttini, Monash University, Melbourne

Funding bodies:
National Health and Medical Research Council
Masonic Centenary Medical Research Foundation

Achievements in 2005:
This study has finished and eight papers were published from the results in 2005. It was found that genetic factors play an important role in the development of knee OA. Compared to control subjects, adult children of those with severe OA were found in general to have higher annual knee cartilage loss, a greater increase in cartilage lesion and a greater decline in physical fitness. It was found that defects in the knee cartilage were very common, and they can be regarded as early markers of OA risk. Healthy lifestyles such as no smoking, physical activity and normal body weight have protective effects on knee structure change, thus reducing the risk of knee OA.

Why and how do women change their own and their children’s calcium intake and physical activity levels?
Dr Tania Winzenberg
Professor Graeme Jones

Staff:
Verity Cleland, Research Assistant
Zanni Waldstein, Research Assistant

This project aimed to identify successful strategies used by mothers to change their children’s lifestyle behaviours, specifically calcium intake and physical activity levels, which could in future be used to develop practical and effective health promotion strategies to use in a general practice setting.

Collaborators:
Dr Emily Hansen, Discipline of General Practice, University of Tasmania

Funding bodies:
Royal Australian College of General Practitioners

Achievements in 2005:
The project has been completed. The results were presented as a poster at the Nutrition Society of Australia Annual Scientific Meeting in Melbourne in December 2005. A full paper describing the study and results has been prepared and publication is currently being pursued.

Clinical trials
Five industry-sponsored clinical trials were undertaken in 2005 in the areas of osteoporosis, rheumatoid arthritis and fibromyalgia.
The Menzies Research Institute’s work in the area of immune disorders and neuro-epidemiology is aimed at preventing the onset or impact of various chronic diseases of the nervous system, such as multiple sclerosis and epilepsy, and also immune disorders such as childhood asthma.

The largest current program of work is in the area of multiple sclerosis (MS). The Menzies Research Institute commenced work on the epidemiology of MS in 1998.

Ausimmune Study (Tasmanian component)
Professor Anne-Louise Ponsonby
Professor Terry Dwyer
Dr Ingrid van der Mei
Associate Professor Bruce Taylor

Staff:
Carol Hurst, Administrative Assistant
Brenda Wood, Research Nurse

The Menzies Research Institute has joined forces with other Australian research bodies to study the influence of environmental factors on the immune system in a national study. The Ausimmune Study aims to examine whether there is a latitudinal gradient of increasing first demyelinating episode (FDE) incidence with increasing latitude in Australia during 2003-2006. In addition, it will assess whether particular lifestyle or environmental factors are associated with the occurrence of a FDE. The multi-centre study is being conducted in four regions: metropolitan Brisbane, Newcastle and the Hunter Valley, Geelong and the Barwon District and Tasmania.

Collaborators:
National Centre for Epidemiology and Population Health, Australian National University
Barwon Health, Geelong, Royal Melbourne Hospital and the University of Melbourne
Hunter Health and the University of Newcastle
The University of Queensland, Royal Brisbane Hospital and Queensland Institute of Medical Research

Funding bodies:
National Health and Medical Research Council
United States National Multiple Sclerosis Society
Multiple Sclerosis Society of Tasmania
Multiple Sclerosis Research Australia

Achievements in 2005:
In 2005, the Ausimmune Study has attracted the support of the newly formed group Multiple Sclerosis Research Australia (MSRA), who have recognised the importance of the study in elucidating environmental effects on the onset and progression of multiple sclerosis. MSRA successfully sought further financial support for the Ausimmune Study. These funds will be used to enhance pathology collection and sample storage and to support extra staff time in each study region, as the workload has proved to be higher than originally expected.

Fifty-three people who have had a FDE are now participating in the Tasmanian leg of the Ausimmune Study in addition to 48 control participants, which represents a response rate of 88 and 70% respectively. Study recruitment will continue until 31 October 2006, with case participants followed up with annual reviews for three years from their initial participation.
Information about theAusimmune Study was presented at the World Congress of Neurology meeting in Sydney in November, and progress in the study will be presented at a research roundtable prior to the March 2006 MSRA conference “Prevention possibilities in Multiple Sclerosis”.

**Longitudinal Cohort Study of Multiple Sclerosis in Southern Tasmania**

Professor Anne-Louise Ponsonby  
Dr Ingrid van der Mei  
Dr Leigh Blizzard  
Dr Fotini Pittas  
Professor Terry Dwyer  
Associate Professor Bruce Taylor

**Staff:**  
Trish Groom, Research Nurse  
Glen Paley, Administrative Assistant  
Jodi Yan, Administrative Assistant

This three year observational study is examining whether certain lifestyle and environmental factors influence the progression of multiple sclerosis. Environmental factors of interest include infections, ultraviolet radiation exposure, diet, exercise, smoking and female hormones.

**Collaborators:**  
Dr Peter Gies, Australian Radiation Laboratory  
Dr Jo Dickinson  
Dr Russell Thomson

**Funding bodies:**  
National Health and Medical Research Council  
Trish Multiple Sclerosis Research Foundation

**Achievements in 2005:**  
The fieldwork for this study was completed in 2005. The participants have had serial clinical reviews at six-monthly intervals. The first full review was in Winter 2002 with 162 people participating in clinics. Of those who participated in this first review, 94% have participated in all subsequent winter reviews.

The final cycle of data collection was completed in February, involving 183 people. We thank all those involved in this study.

Serum vitamin D has been measured in 181 people, with repeated measures for each summer and winter review that the person participated in for the three year cohort study. The study database has been assembled and checked and preliminary data analysis is now underway.

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**Tasmanian Multiple Sclerosis Case-Control Study**

Professor Anne-Louise Ponsonby  
Professor Terry Dwyer  
Dr Ingrid van der Mei  
Associate Professor Bruce Taylor  
Dr Jo Dickinson  
Dr Russell Thomson

The Tasmanian Multiple Sclerosis (MS) Case-Control Study was a population based case-control study that was originally set up to examine the link between past sun exposure and risk of multiple sclerosis.

The study also aimed to look at the relationship between MS, past infections and sibship structure, which is an indirect measure of the timing of infection load.

Due to the success of the study, NHMRC funding has been received in 2005 to examine how candidate genes may influence the association between low past sun exposure and risk of developing MS. This study was renamed the “Genes and Sunshine Study of Multiple Sclerosis”.

**Collaborators:**  
Dr Helmut Butzkueven, Howard Florey Institute, University of Melbourne  
Dr Andrew Kemp, Discipline of Paediatrics and Child Health, University of Sydney and Children’s Hospital at Westmead, Sydney  
Dr Trevor Kilpatrick, Howard Florey Institute, University of Melbourne  
Dr Rex Simmons, Canberra Hospital

**Funding bodies:**  
National Health and Medical Research Council  
Australian Rotary Health Research Fund  
Multiple Sclerosis Australia

**Achievements in 2005:**  
In 2005, findings from the case-control study were reported in the Journal of the American Medical Association. The study found that higher exposure to infant siblings in early life was associated with a reduced risk of MS. However, as this was a first report, further confirmatory work is required. This work was mentioned in National Health and Medical Research Council’s review of successful research projects funded from 1990 – 2000.
Two other new publications have been accepted this year. The first one showed that the occurrence of vitamin D insufficiency among people with MS is high. The occurrence of vitamin D insufficiency increases with disability, probably as a result of reduced exposure to the sun. Therefore, active detection of vitamin D insufficiency among people with MS and intervention to restore vitamin D status to adequate levels should be considered as part of the clinical management of MS.

The second paper examines the validity and reproducibility of adult recall of past sun exposure. We compared questionnaire measures with objective measures such as serum vitamin D and actinic damage - a measure of cumulative sun exposure. The study showed that adults are able to recall past sun exposure in a valid and reliable way.

Genetic and environmental data are now available from the study of people with MS and control subjects. This has provided an opportunity to examine combined effects of genes and environmental or lifestyle factors. This is important, as it is the interplay of genes and environmental factors that ultimately will lead to complex diseases such as MS.

**Tasmanian Epilepsy Register Study**

Dr Wendy D'Souza
Associate Professor Bruce Taylor

**Staff:**
Charlotte McKercher, Administration Officer

This study aims to investigate the health of Tasmanians with epilepsy and discover factors that may explain the causes or consequences of having this common neurological condition.

**Collaborators:**
Professor Mark Cook, University of Melbourne and St Vincent's Hospital, Melbourne
Associate Professor David Ficker, Cincinnati Medical School, USA
Associate Professor Terry O'Brien, University of Melbourne
Professor Neil Pearce, Centre for Public Health Research, New Zealand

**Funding bodies:**
National Health and Medical Research Council
Royal Australasian College of Physicians
GlaxoSmithKline Fellowship in Neurology

Royal Hobart Hospital Research Foundation
Ian Potter Foundation
Booth Estate
Clifford Craig Medical Research Trust
Singapore Institute of Neurosciences

**Achievements in 2005:**
To date, 1,277 people have been recruited and enrolled to participate in the Register. Of those participants initially enrolled, 40 have now withdrawn from the study and 33 are deceased leaving 1,204 on the current Register. Consent for participation has now been obtained from 97.8% of participants, allowing us to continue the next stage of the study in which participants and a nominated witness complete a 30-45 minute phone interview to assess epilepsy type, risk factors and management. Approximately 1,000 register participants have now undergone this detailed diagnostic interviewing representing a response rate of over 80%.

The completion of this phase of the project will enable the first national estimate of both the prevalence and type of treated epilepsy in the community. The project has attracted considerable national and international interest due to its uniqueness and potential long-term implications in the field of epilepsy epidemiology.

**Tasmanian Study of Cognition and Gait (TASCOG)**

Dr Velandai Srikanth

**Staff:**
Shalee Richardson, Research Officer

Dementia and falls are among the most prevalent and expensive disorders affecting older Australians. Around $3 billion is spent each year on dementia, and $24 million per year on falls. With Australia's rapidly ageing population, health care expenditure is set to increase.

The project is studying the effects and mechanisms of age-related brain changes on cognition, gait and balance. Researchers will examine the relationship between factors affecting vascular health and age-related changes in brain structure and function. Previous research has suggested that such factors may be involved in causing changes in brain structure that are common with increasing age.
Environmental factors in infancy may influence allergy development

Collaborators:
Associate Professor David Johns, Consultant Clinical Physiologist, Royal Hobart Hospital and University of Tasmania
Professor Haydn Walters, Respiratory Physician, Royal Hobart Hospital and University of Tasmania
Dr Richard Wood-Baker, Respiratory Physician, Royal Hobart Hospital and University of Tasmania

Funding bodies:
Royal Hobart Hospital Research Foundation
Perpetual Trustees
ANZ Charitable Trustees – RA Parker Settlement and RA Parker Estate
Brain Foundation

Achievements in 2005:
Since commencement in 2004, TASCOG has progressed significantly in terms of participant recruitment and acquiring major grant funding. At the end of 2005, 140 participants have been recruited into the study. Early information from the study has been presented at national and international scientific venues. At the end of 2005, the National Health and Medical Research Council awarded TASCOG investigator Dr Velandai Srikanth a major grant to complete a further three years of this study, commencing in 2006. To this effect, further staff members will be employed and post-graduate students become part of the TASCOG team.

Fetal and infant determinants of childhood asthma
Professor Anne-Louise Ponsonby
Professor Graeme Jones
Professor Terry Dwyer

Staff:
Pip Boon, Research Officer
Jenny Cochrane, Data Manager
Charlotte McKercher, Research Assistant

Allergic disease has increased greatly among children over time. The Tasmanian Infant Health Survey and related childhood asthma and allergy studies have provided an important resource for new information on fetal and infant factors that may be modified to reduce the risk of childhood asthma or allergic disease. This study aims to identify whether infant environmental influences on the developing immune system are likely to set the scene for the development of allergic disease later on.

Collaborators:
Dr Karen Andreaysan, National Centre for Epidemiology, Australian National University
Professor Andrew Kemp, University of Sydney and Children’s Hospital at Westmead, Sydney

Funding bodies:
National Health and Medical Research Council
Financial Markets for Children Foundation

In-kind support:
Betta Milk
Blockbuster Video
Putters Adventure Golf

Achievements in 2005:
In 2005, the fieldwork for this study was completed alongside measurements for the T-bone study (see page 17). Measures were taken on hayfever and allergic development in adolescents, so that the determinants of new allergic disease in adolescence could be better studied. This cohort utilises a ‘life course approach’ to study allergic disease causation, taking into account not only fetal and infant factors but also those likely to be acting when children are of primary school and adolescent age. Data analysis is underway.
The Literacy Pathways project conducted vision screening in southern Tasmanian schools
Cancer is an important cause of morbidity and mortality in Australia. It is estimated that one in three men and one in four women will be diagnosed with a malignant cancer in the first 75 years of life. Cancer accounted for 31% of male deaths and 26% of female deaths in 2001. The Menzies Research Institute conducts research to contribute to the growing body of knowledge on the causes and treatment of many types of cancer.

Cigarette Type and Lung Function Study

Chief Researcher:
Dr Leigh Blizzard

Staff:
Clare Munro, Project Officer
Damon Richardson, Respiratory Function Laboratory Technician
Michael Austin, Lung Scan Technician

Tobacco smoking remains a major cause of death and disability in Australia. In 2000, approximately 7,650 Australians died from smoking-related cancers alone. Predominant among these is lung cancer. It is estimated that 87% of lung cancers in Australia are due to smoking.

Since the 1950s, cigarette manufacturers have changed the design of cigarettes and the methods of manufacturing them with the purpose of reducing the machine-measured yields of carcinogenic tar and nicotine they produce. These changes have resulted in the modern “low-yield” cigarette with tar levels of 1 or 2 mg, or even lower.

Today, scientists are debating whether smoking low-yield cigarettes has reduced the harm done by smoking. The concern is that adenocarcinoma of the lung, a type of lung cancer that is most common in the small peripheral airways, has increased in frequency despite the reductions in machine-measured yields.

To investigate one aspect of the harm done by smoking low-yield cigarettes, this study is examining whether there are differences in lung function between people who smoke lower-yield cigarettes, and those who smoke cigarettes that have higher yields. The study involves participants who have consistently smoked cigarettes of the same or similar type for many years.

Collaborators:
Associate Professor David Johns, Consultant Clinical Physiologist, Royal Hobart Hospital and University of Tasmania
Professor Haydn Walters, Respiratory Physician, Royal Hobart Hospital and University of Tasmania
Dr Richard Wood-Baker, Respiratory Physician, Royal Hobart Hospital and University of Tasmania

Funding bodies:
National Health and Medical Research Council

Achievements in 2005:
Fieldwork in this study continued in 2005. Contact has been made with 2,250 persons living in southern Tasmania who had been selected at random from the State Electoral roll. Of them, 306 were confirmed to be current smokers and 228 satisfied our eligibility requirements based on length and continuity of smoking history. To date, 144 (63.2%) of the 228...
eligible subjects have participated in the study. All data has been entered into a database, and all participants have been provided with a written report of their lung function results.

Skin cancer and non-Hodgkin’s lymphoma: What is the risk of developing both primary cancers in Tasmania?

Associate Professor Alison Venn
Dr Leigh Blizzard
Professor Terry Dwyer

Staff:
Jayne Fryer, Statistical Officer
Leah Newman, Manager Cancer Registry

Skin cancer and non-Hodgkin’s lymphoma (NHL) have become more common in recent years. Sun exposure is known to increase the risk of skin cancer and it may play a role in the development of NHL. Using data from the Tasmanian Cancer Registry, the study aims to determine how frequently both cancers occur together in the same individual. This will help to improve our understanding of whether there are common causal factors.

Collaborators:
Dr Greg Woods, Department of Pathology, University of Tasmania

Funding bodies:
The Cancer Council Tasmania

Achievements in 2005:
This study has demonstrated previously that people with a history of non-melanoma skin cancer (NMSC) are more at risk of developing NHL than people in the Tasmanian population without a history of NMSC. The risk was greater in those with a history of squamous cell carcinoma than in those with basal cell carcinoma - the two most common types of NMSC.

New analyses in 2005 set out to examine whether people with a history of two or more skin cancers were at greater risk of NHL than those with only one previous NMSC, and to examine whether the prognosis of patients with NHL was any poorer if they had a history of NMSC. The results showed that a history of multiple NMSCs was associated more strongly with the risk of NHL than a single NMSC, but the prognosis for patients with NHL was unaffected by a history of NMSC.

Tasmanian Cancer Registry

Director:
Associate Professor Alison Venn

Staff:
Leah Newman, Manager Cancer Registry
Krystyna Jackman, Administration Officer
Vanessa Webb, Administration Officer
Pam Whelan, Administration Assistant

The Tasmanian Cancer Registry (TCR) is responsible for collecting, collating and reporting incidence of all cancers in Tasmanian residents. By law, cancer registration is required in all Australian States and Territories to assist State and National efforts to understand the causes of cancer, to plan health services and assist prevention efforts and treatment decisions.

Funding bodies:
Department of Health and Human Services, Tasmania

Achievements in 2005:
In 2005 the Tasmanian Cancer Registry (TCR) published two reports, both in hard copy and on the internet:

• Cancer in Tasmania: Incidence and Mortality 2001
• Cancer in Tasmania: Incidence and Mortality 2002

Development of the new Registry database continued. New features include an electronic processing module for hospital cancer admissions records, a process to generate automatic correspondence to doctors for case validation, and a report generation module to report cancer statistics.

A new scanner was purchased for the Registry by the Department of Health and Human Services Tasmania. This has improved the efficiency of electronic document capture.

The TCR provided data for two Menzies Research Institute research projects in 2005. The first was a record-linkage study to examine the association between skin cancers and fractures. The second identified eligible participants for a study investigating the role of sun exposure and candidate genes modifying risk in prostate cancer.
The Menzies Research Institute conducts research into the genetic causes of disease. This includes discovery of disease susceptibility genes and the investigation of how common genetic variations may interact with environmental factors to influence susceptibility to disease.

Chromosomal localisation of an autosomal dominant congenital cataract gene
Dr Briony Patterson

Cataract is a leading cause of blindness in the world and a family history of age-related cataract is a strong risk factor. This project examined the genetic factors which may influence the development of this disease by examining families with multiple cases of congenital cataract.

Collaborators:
Dr James Craig, Department of Ophthalmology, Flinders University
Dr Kathryn Burdon, Department of Ophthalmology, Flinders University
Dr David Mackey, Centre for Eye Research, University of Melbourne
Dr James McKay, International Agency for Research on Cancer

Funding bodies:
Royal Hobart Hospital Research Foundation

Achievements in 2005:
One large family with a reoccurrence of congenital cataract was studied to identify a region of chromosome 1p that is likely to contain a gene that causes congenital cataract. Results from this study were published in 2005 in the British Journal of Ophthalmology. Subsequently this project has moved to the Flinders Medical Centre in Adelaide, where the region is being intensely studied to determine the exact gene that is causing the congenital cataract.

Identification of genes modifying risk of Multiple Sclerosis via the UV exposure pathway
Dr Jo Dickinson
Professor Anne-Louise Ponsonby
Dr Ingrid van der Mei
Professor Terry Dwyer

Staff:
Ceri Flowers, Research Officer
Andrea Polanowski, Research Assistant

Multiple sclerosis (MS) is a chronic debilitating neurodegenerative disease which affects more than 10,000 predominantly young adult Australians. The processes leading to MS are not well understood, however it is believed to involve a complex interaction of environmental and genetic factors. This project aims to investigate the role of genes which mediate the physiological response to sun exposure. Identification of genes associated with MS risk has the potential to provide new insights into MS aetiology, in addition to providing possible intervention measures and therapeutic targets. Comprehensive environmental data has been collected on both participants affected with MS and disease free controls. This project proposes to examine genes likely to be involved in the
physiological response to sun exposure and how they may interact with these environmental measures.

**Collaborators:**
Dr James McKay, International Agency for Research on Cancer, France
Dr Jim Stankovich, Walter and Eliza Hall Institute, Melbourne

**Funding bodies:**
National Health and Medical Research Council

**Achievements in 2005:**
A National Health and Medical Research Council grant was awarded in 2005 which has funded the collection of additional biological samples to include all participants of the Tasmanian Multiple Sclerosis Case-Control Study. The completion of sample collection will be achieved in May 2006. Genetic analysis of samples collected to date has been undertaken and preliminary analysis of this data is underway.

**Tasmanian Prostate Cancer Genetics Study**
Dr Jo Dickinson
Dr Briony Patterson

**Staff:**
Annette Banks, Genealogist
Liesel Fitzgerald, PhD student
Andrea Polanowski, Laboratory Technician
Dr Stephen Quinn, Biostatistician
Dr Russell Thomson, Biostatistician

Every year around 11,000 Australian men are diagnosed with prostate cancer and more than 2,500 die. Prostate cancer is rapidly overtaking lung cancer as the largest cause of male cancer-related death. Current therapies are associated with significant side-effects and whilst improvement in survival and prognosis is achieved when disease remains confined to the prostate, there is little understanding of the factors influencing disease progression. There remains a great need to improve our understanding of the contributing factors determining onset and progression of prostate cancer through the discovery of the underlying genes causing disease. Our study aims to identify those genes which predispose individuals to developing prostate cancer and also those genes contributing to progression of this disease. Understanding the underlying genetic contributors will allow for early intervention in aggressive cancers and new strategies to tailor treatment regimes.

**Collaborators:**
Associate Professor David Challis, Royal Hobart Hospital
Dr Garry Hannan, P-Health Initiative, CSIRO
Dr Damien Hope, Hobart Pathology
Dr James McKay, International Agency for Research on Cancer, France
Dr Jim Stankovich, Walter and Eliza Hall Institute, Melbourne
Associate Professor Deon Venter, Murdoch Childrens Research Institute, Melbourne

**Funding bodies:**
ANZ Charitable Trustees - R.A. Parker Settlement
The Cancer Council Tasmania
Royal Hobart Hospital Research Foundation
Perpetual Trustees
Mazda Foundation

**Achievements in 2005:**
The study of families with multiple cases of prostate cancer is a powerful approach used to identify the genes that cause disease. Our team has developed a rare dataset comprising a number of such families. An in depth examination of the genetic profiles of individuals with and without prostate cancer has been conducted and our research team has developed novel methods for analysis of this data. This analysis has identified interesting genetic regions, including one on chromosome 5p. The evidence indicates that this genomic region is likely to be involved in the development of prostate cancer. This independent finding warrants further investigation and we are currently pursuing this finding by examining candidate genes in the region.

Further work designed to gain a better understanding of the processes involved in prostate cancer progression is also being undertaken. An in-depth examination of genetic changes in prostate cancer tumours has revealed that common patterns of genetic changes are observed in a number of patients from the same family. Few, if any, studies world-wide have examined genetic changes in prostate cancer tumours in such a large number of individuals from a single family and work to further investigate these findings is continuing.
Prostate Cancer Case Control Study in Tasmania
Dr Leigh Blizzard
Dr Jo Dickinson
Professor Terry Dwyer
Dr Russell Thomson

Staff:
Jenny Cochrane, Data Manager
Jan Halley, Research Nurse
Andrea Polanowski, Research Assistant
Heidi Smark, Research Officer

Prostate cancer is one of the most commonly diagnosed cancers in Australian men. Research has shown that lifestyle and environmental factors combine to influence risk of developing this disease. There remains a great need to improve our understanding of the contributing factors determining onset and progression of prostate cancer.

The aim of this study is to examine the genes mediating the physiological response to sun exposure and how they may interact with environmental factors to modify prostate cancer risk. The Case Control Study of Prostate Cancer in Tasmanian Men, undertaken previously, revealed some interesting findings relating sun exposure to prostate cancer risk. The funding provided by the Department of Veterans’ Affairs has supported the expansion of the number of participants in the study to achieve a target of 800 participants. This will facilitate the meaningful identification of modifiable environmental factors which may interact with genetic factors to influence prostate cancer risk.

Collaborators:
Dr James McKay, International Agency for Research on Cancer, France
Dr Jim Stankovich, Walter and Eliza Hall Institute, Melbourne

Funding bodies:
Department of Veterans’ Affairs, Commonwealth Government
Lions Club of Forth Valley
Masonic Foundation

Achievements in 2005:
Recruitment of cases and controls has continued throughout 2005. Genetic analysis of samples collected to date has allowed some preliminary analysis to be performed. Examination of this work has provided an early indication that genes associated with vitamin D activity interact with sun exposure to modify prostate cancer risk. This work was presented at the American Society of Human Genetics Conference held in Salt Lake City, Utah in October 2005.

Genes and Birthweight
Dr Leigh Blizzard
Dr Jo Dickinson
Dr Briony Patterson
Professor Terry Dwyer

Staff:
Pip Boon, Research Officer

This study aims to test whether infant birth weight and genetic factors, particularly those that determine skin melanin density, interact in influencing childhood blood pressure and fasting blood glucose and insulin levels. The study group consists of 779 children from the Tasmanian Infant Health Study birth cohorts of 1988 and 1989 who participated as eight year olds during 1996 and 1997 in previous follow-up studies of blood pressure and cholesterol.

Collaborators:
Dr Michelle Sale, Wake Forest University School of Medicine, USA
Dr Stephen Rich, School of Medicine, Wake Forest University School of Medicine, USA
Dr Stephen Richards, Biochemistry Department, University of Tasmania
Dr Ruth Morley, Royal Children’s Hospital, Melbourne
Dr James McKay, International Agency for Research on Cancer, France

Funding bodies:
National Health and Medical Research Council

Achievements in 2005:
Genotyping of samples was completed in 2005. Analyses have identified two genes that interact with birth weight to determine systolic blood pressure, and a manuscript reporting the results has been drafted.
Tasmanian Parkinson’s Disease Research Project – A Feasibility Study

Associate Professor Alison Venn
Dr Jo Dickinson
Dr Wendy D’Souza

Staff:
Nicola Stephens, Project Officer

Parkinson’s disease is a common brain disease, second in frequency only to Alzheimer’s disease in people over the age of 60. It is estimated that at least 100,000 Australians suffer from Parkinson’s disease. The Tasmanian Parkinson’s Disease Research Project was the first stage of a collaborative project that plans to expand nationally to investigate the genes that cause Parkinson’s disease. Identifying inherited risk factors will provide a better understanding of the way that Parkinson’s disease develops, and is the next important step towards preventing and treating the disease.

Collaborators:
Dr Justin Rubio & Professor Mal Horne, Howard Florey Institute, Melbourne
Dr Katya Kotschet, St Vincent’s Hospital, Melbourne
Dr Jim Stankovich, Walter & Eliza Hall Institute, Melbourne

Funding bodies:
Royal Hobart Hospital Research Foundation
Cass Foundation
Rebecca L Cooper Foundation

Achievements in 2005:
This project assessed the feasibility of identifying and recruiting Tasmanian families with two or more living members affected by Parkinson’s disease. Recruitment was conducted via media advertisements and news stories, and through specialist physicians. Brief telephone interviews were conducted with eligible respondents and 11 families were identified for further follow-up.

Thirty-two members of these families had clinical examinations and interviews with specialist neurologists and provided DNA samples. Analysis of the DNA has so far identified one family with a known mutation in the leucine-rich repeat kinase 2 (LRRK2) gene. Genetic analysis is still underway but early findings have confirmed that a mutation in the leucine-rich repeat kinase 2 gene (LRRK2) appears to be associated with Parkinson’s disease. This genetic change is quite widespread in Europe and has recently been linked to Parkinson’s disease in Western Australia, Queensland and New South Wales. A paper reporting the combined Australian findings is being prepared for publication.
The Biostatistics Unit aims to provide statistical support to each of the research groups at the Menzies Research Institute, and to the Tasmanian Cancer Registry. This involves:

- Assisting in planning and designing studies by advising on appropriate methods of sampling, assisting with the formulation of testable hypotheses, and determining an adequate sample size for the study;

- Data management tasks – supervising data entry, data storage, data reconciliation, data verification, data cleaning including dealing with discordant values, data extraction, and merging or appending datasets;

- Data analysis – by advising on appropriate methods of analysis, or by assisting with or undertaking the analyses. Data analytic tasks include variable definition, weighting, dealing with discordant values in analysis, planning appropriate statistical analyses, determining appropriate data representations for the response variables and covariates, undertaking the analyses with assessment of effect modification and adjustment of confounders, and checking the robustness of results to influential observations and departures from modelling assumptions. Particularly in the area of genetic statistics, where there are gaps in existing methodology, the statistician will need to develop new statistical methods usually in collaboration with theoretical statisticians working in the area;

- Data interpretation – testing of a priori causal hypotheses, forming and testing post hoc hypotheses, assessment of the effects of measurement error, and assessment of the validity of findings;

- Report writing – assisting with the preparation of papers for publication and other reports, and usually with particular responsibility for preparing the Methods and Results sections. of the construct validity of the findings.

Staff:
Dr Leigh Blizzard, Head of Biostatistics Unit
Ms Jayne Fryer, Statistical Officer
Ms Kara Martin, Statistical Officer
Dr Russell Thomson, Biostatistician
Dr Stephen Quinn, Biostatistician

Collaborators:
Dr Jisheng Cui, CSIRO
Professor David Hosmer, University of Massachusetts, Amherst
Trina Hosmer, University of Massachusetts, Amherst
Dr James McKay, International Agency for Research on Cancer, France
Dr Jim Stankovich, Walter and Eliza Hall Institute, Melbourne

Achievements in 2005:
The biostatisticians contributed to the research output of other units, as described elsewhere in this report. In addition, they were responsible for developing new analytical techniques that have resulted in several methodological improvements in data analysis. These include methods of modelling cohort data to provide estimates of relative risk, and approximate methods of analysing data from large family pedigrees.
Staff:

Mark Bennett, General Manager
Tim Albion, IT Systems Manager
Bill Avery, Community Relations Officer
Jill Butterworth, Communications Coordinator
(from 17 January)
Alistair Chilcott, IT Systems Administrator
(from 25 July)
Julia Garry, Development Officer
Melita Griffin, Business Development Manager
Furley Johnston, Receptionist
Loretta Johnston, Administrative Assistant
(to 27 October)
Dr Lisa Koutoulis, Grants Coordinator
(from 22 August)
Dixie Prenter, Secretary to the Director
Emma Stubbs, Administrative Assistant
Kathy Thomson, Administration Officer - Human Resources
David Watson, IT Systems Administrator (to 6 June)
Stewart Wells, Administration Officer - Finance

The Administrative Services Unit aims to provide efficient and effective support to the Director, Board and staff within the Institute. The Unit supports the Institute’s research activities across a number of areas, including administration and reception, human resource management, finance, grants management, information technology, business development and communications.

With new governance arrangements, a new Board, the appointment of Professor Foote as the Director, progress with the new building project for the Institute and the introduction of a significant strategic direction for the Institute, 2005 was a challenging year for the Administrative Services Unit.

Administration, reception and human resources

Administration, reception and human resources staff played an important role supporting the achievement of the Institute’s objectives and the strategic direction of the Institute this year. Human resource staff were active recruiting a number of new appointees to the Institute and replacements for staff who had moved on. In 2005, staffing numbers remained at the same level as 2004, with a significant decrease in staff turnover. The year 2006 will see the implementation of a growth strategy for the Institute that will see staff numbers increase significantly.

In late 2004, the University of Tasmania established new governance arrangements for the Institute and appointed a new board chaired by Dr Dan Norton. The University determined that the Institute should operate as a corporate entity established within the legal framework of the University rather than a separate legal entity, however it intended that the governance relationship between the Institute and the University would largely mimic that which would occur if the Institute was a separate legal entity.

A priority of the Administrative Services Unit in 2005 was to implement the new governance arrangements at an operational level so that the Institute could be more responsive and take greater control over its own affairs and strategic direction.

Another priority of the Administrative Services Unit in 2005 was managing the consultation process for the new building for the entire Institute, to ensure that the building is fit for purpose and has the capacity to accommodate our projected growth. The new building will be a co-location of the Menzies Research Institute and elements of the University of
Tasmania’s Faculty of Health Science, including the School of Medicine. It is anticipated that the building will be completed during 2008.

Finance

In 2005, the Institute received a record level of income of $5,871,765 from a variety of funding sources, including $1,891,305 from nationally competitive grants via the National Health and Medical Research Council and the Australian Research Council. This included $500,000 for a Capacity Building Grant and $549,040 for the Childhood Determinants of Adult Health project.

The Institute also received $724,896 from the University of Tasmania. The majority of these funds were in recognition of the Institute’s research income, publications, research higher degree student load and research higher degree completions via the Australian Government’s Research Training Scheme, Institutional Grants Scheme and Research Infrastructure Block Grant.

The Tasmanian Government continued to provide support in a number of areas including recognition of the Institute’s status, achievements and place in the Tasmanian community by awarding funding under the Tasmanian Icons Program through the Department of Economic Development. The Department of Health and Human Services also provided funds for the Tasmanian Cancer Registry, which is managed by the Institute, and to support our epidemiological research.

The Menzies Foundation was largely responsible for the formation of the Institute and has supported the Institute since its inception. The Foundation continued this support in 2005 providing $125,000 towards the activities of the Institute.

The Institute continued its strong relationship with international philanthropic organisation Atlantic Philanthropies. One million dollars was received to support the construction and basic fit-out of the new building. A further $6,500,000 will be received in 2006. The Atlantic Philanthropies has announced a further grant of $US2,000,000 to the Institute over the period 2006 to 2009.

The Institute had a pleasing result in 2005, with an operating surplus of $434,604. A majority of this surplus resulted from funds received for research projects that will be expended in 2006. The Income Statement and Balance Sheet for the year ended 31 December 2005 are included in this report at pp. 44 – 46.

Information Technology

The Information Technology (IT) team aim to provide reliable, effective, secure and innovative IT solutions to assist the Menzies Research Institute pursue its mission.

The Institute’s IT systems are continually being maintained and improved to ensure the secure storage of data and the reliable and effective use of computers and software in the day to day running of the Institute.

In 2005, the Institute’s main office and groupware products were upgraded to improve security, work efficiency and collaboration efforts. Anti-virus and automatic upgrade systems were also upgraded to protect the Institute’s valuable IT resources.
Business Development

Competitive grant funding does not cover all of the costs associated with the Institute’s research projects. The Menzies Research Institute’s Business Development Team (BDT) is responsible for raising additional funds which allow the Institute to expand the scope of our research and purchase essential items of equipment.

The BDT works with the community, including businesses, community groups, philanthropic organisations and individuals, to meet the costs of the Institute’s ongoing needs.

Each year the BDT conducts four major fundraising appeals calling on the support of the Tasmanian community and beyond. In the past year hundreds of individuals, community groups and organisations generously donated funds to assist in a number of priority areas, including:

- the expansion of new research programs, including identifying ways to prevent brain related disease and disability in older people and investigating the genetic and environmental factors for the risk of developing second and subsequent non-melanoma skin cancers;
- the purchase of an ultra low temperature freezer for the effective storage of specimens for a range of research projects;
- biochemical testing of blood samples for the Tasmanian Older Adult Cohort (TasOAC) study; and
- support for participant recruitment and sample selection for research to identify the genetic and environmental factors that influence Parkinson’s disease.

During 2005 the Menzies Research Institute also received significant support from a number of individuals and businesses to run events and new activities to raise funds and community awareness of the Institute’s work.

The Department of Police and Public Safety, as part of the Pacing the Police partnership, assisted the Institute to develop the health promotion booklet, Steps to Better Health. The booklet was released for sale to the general public in 2005, with proceeds to support research at the Institute.

The generosity of local businesses and individuals made the Institute’s twelfth annual Golf Classic in February 2005 our most successful to date. The 2005 event, presented by Corporate Express Office Equipment, saw 136 golfers competing for the Golf Classic Cup and raising more than $17,000 for research into non-melanoma skin cancer.

In May, Collex and the Institute teamed up to present a successful information display at Agfest. Collex also extended its support to the Institute by sponsoring the Collex Menzies Premier’s Luncheon and launch of the AFL season in Tasmania in 2005. This event raised funds for the Institute via a raffle and auction. Many thanks to Andrew Dale who organises the event each year, and Ron Ward and his team at Collex for providing the Institute with opportunities throughout 2005 to raise awareness of our research, as well as funds for research activities.

The Art of Christmas cocktail function held in July was a new event on the Institute’s calendar. Twelve Tasmanian artists donated original pieces of artwork to the Institute, depicting their interpretation of Christmas and the celebration of life, which was showcased to the Tasmanian business community.

The Institute, with the support of local businesses, reproduced the artwork into high quality Christmas cards for corporate clients and the community. This function together with the sales of the Christmas Cards raised more than $14,000 for medical research.

Colin Anderson, Creative Director of graphic design company Direction by Design, was instrumental in the success of the inaugural Art of Christmas event.
Special thanks also to key supporters Beyond PR, Wrest Point and Display Works.

In October, Research Australia’s Thank You Day provided the Institute with an opportunity to thank volunteers, study participants, donors, sponsors and researchers for their varied contributions to health and medical research in Tasmania. The morning tea, which was co-hosted with the University of Tasmania’s Faculty of Health Science, featured the launch of the Menzies Research Institute’s Literacy Pathways study.

Communities on Tasmania’s north-west coast showed their support for the Menzies Research Institute at the 2005 Bride of the Year competition. The contest has been organised for more than ten years by Mrs Bev Twibell, a long term supporter of the Institute. Over the past decade the event has raised more than $68,000 for infant health research. Mrs Twibell was this year added to the Tasmanian Honour Roll of Women in recognition of her commitment to the Tasmanian community, particularly her fundraising efforts for a variety of charitable causes.

We would like to extend our thanks and acknowledge the generosity of all individuals, businesses, community groups, philanthropic organisations and levels of government who have supported the work of the Menzies Research Institute in the past year.

Funding Partners
Menzies Foundation
Department of Economic Development through the Tasmanian Government Icons Program
University of Tasmania

Grants
ANZ Charitable Trustees
Atlantic Philanthropies
Australian Health Management Group
Australian Research Council
Brain Foundation
The Cancer Council Tasmania
Commonwealth Department of Veterans’ Affairs
Department of Health and Human Services, Tasmania
Howard Hughes Medical Institute
Mazda Foundation
National Health and Medical Research Council
National Heart Foundation
National Institutes of Health
Perpetual Trustees
Physiotherapy Research Foundation
Royal Hobart Hospital Research Foundation
Trish Multiple Sclerosis Research Foundation
University of New South Wales
University of Tasmania Institutional Research Grants Scheme

Consultancies
Australian National University
Department of Health and Human Services, Tasmania
Department of Police and Public Safety, Tasmania
World Health Organisation
The number of PhD students enrolled at the Institute increased during 2005.

The Institute received a generous bequest from the late Ruby Menzie, who made the gift in her Will to assist medical research conducted at the Institute. The funds were allocated to a new scholarship program named the Ruby Menzie Scholarship in Population Health Research. The University of Tasmania recognised this commitment by the Institute to postgraduate education and agreed to provide matching funds.

The resulting sum enabled the recruitment of four PhD students in 2005. Scholars Stella Foley, Mary Gutteridge, Charlotte McKercher and Helen Jordan are studying some of the most common and chronic diseases affecting Australians today, ranging from osteoarthritis to mental illness and factors which may influence breast cancer. Au Bich Thuy will join the Institute in 2006.

Guanju Zhai finished and submitted his PhD thesis in 2005 on the topic “A population based study in osteoarthritis”. Tania Winzenberg also completed her PhD thesis which looked at ways of improving public health strategies and boosting the calcium intake of those at risk of developing osteoporosis.

Liesel Fitzgerald continued her PhD on the genetics of prostate cancer, while Verity Cleland and Costan Magnussen worked with the Childhood Determinants of Adult Health study and Jacinta Charlesworth continued her study of the genetics of glaucoma.

In other areas of education and training, the Institute offered an internal *Introduction to Epidemiology* course to new staff, taught by epidemiologists from the Institute.

Also internally, the weekly series of Academic Meetings continued with high attendance from both academic and general staff. These meetings continue to provide staff with an invaluable opportunity to discuss research progress and priorities.

The *Advanced Epidemiology* course, which began in 2004, continued throughout 2005 and will conclude in 2006. The aims of this course are to provide researchers with the skills required to formally interpret the reported results of epidemiological studies and design, implement and analyse epidemiological studies.
The Volunteer Program maintained a steady number of active volunteers in 2005. The Institute farewelled some volunteers, who left for various reasons including new employment opportunities, and we were happy to welcome around 20 new volunteers who registered with the program. By the end of 2005 there were almost 60 volunteers providing research and administrative support to a variety of projects.

Volunteers are recruited from a variety of sources, however the majority become aware of the program after participating in a study or visiting the Institute for a bone density scan. Other new volunteers have joined us after learning about the Institute through a community talk.

New volunteers attend an induction session and receive a copy of the Volunteer Handbook. Efforts are then made to match their skills and availability with the needs of different units. Some volunteers are happy to assist whenever required, though it is pleasing to see that the majority of new volunteers are seeking a regular commitment with the Institute. Volunteers undertake many tasks, including reception duties, library maintenance, development and fundraising, special events, photocopying, filing, clerical duties, mail-outs, testing and assisting study participants, and data entry. These volunteers allow the Institute to carry out work which may not otherwise be achievable, and their involvement is deeply appreciated by researchers and administration staff alike.

The Institute would like to thank the following volunteers for their commitment and dedication in 2005:

Davys Baldwin
Irma Baumeler
Denis Black
Richard Brodribb
Beverly Brown
Margaret Brown
Audrey Button
Von Calvert
Robyn Chapman
Anita Clarkson
Fay Cox
Ian Crouch
Wendy Davidson
Susan Davies
Michele Djeric
Kate Donaldson
Leslie Fletcher
Pauline Foley
Peter Fyle
Anne Galer
Colleen Hay
Cheryl Hewitt
Michael Heynes
Keryl Houigrave
Carol Hurst
Jean Keil
Kathy Koukias
Jennifer Langridge
Jan Lansdell
Mary Leon
Sue Lewis
Sylvia Macleod
Marie Magill
Philippa Mahony
Margaret McDonald
Betty McMeekin
Prue O’Halloran
Dale Pitt
Rhona Puclin
Emily Quinn
Jennifer Ransley
Maree Steele
Anne Temple-Smith
Launa Turner
Samantha Twigg
Marylyn U’Ren
Robert U’Ren
Gerald Veldhuis
Mary Veldhuis
Vicki Wagstaff
Margaret Webb
Fay Wheeler
Pamela Whelan
Jenny Wiggins
Janice Williams
Helen Wood
Appendix 1: PRESENTATIONS

*Bennett, M. Thriving, surviving or declining: How we found out what we were doing. Oral presentation at the 3rd Tertiary Education Management Conference, Perth, September 2005.


*D’Souza W. Tailoring 2nd generation AED therapy - Choosing the right drug for the right patient. Lecture to the Southern Division of General Practice Continuing Education Programme, Hobart, August 2005.


*D’Souza W. When and which of the new anticonvulsants to use?, St Vincents Hospital Neuroscience Seminars, Melbourne, Australia, December 2005.


*Foote S. Wound healing is an important factor in the innate immune response to L. major. Poster presentation at the Howard Hughes Medical Institute Meeting, Mexico, June 2005.


*Foote S. Wound healing and the response to L major infection. Oral presentation to the University of Groningen, Netherlands, June 2005.

*Foote S. Wound healing and the response to L major infection. Oral presentation to the Division of Medicine, Hobart, August 2005.


*Foote S. Platelets, lymphocytes and haplotypes: Stories of host response to malaria. Oral presentation to the Walter and Eliza Hall Institute, Melbourne, November 2005.

*Foote S. Protection against the severe sequelae of a malarial infection by platelets. Oral presentation to the Australasian College of Tropical Medicine Regional Scientific Meeting, Hobart, November 2005.

Appendix 1: PRESENTATIONS


*Ponsoby A-L. Measuring environmental context to enhance the search for disease causing genes. Oral presentation at GeneMappers, Mount Buller, November 2005.

*Ponsoby A-L. Multiple Sclerosis: Recent Research Work Demonstrating Some Of The Principles And Practice Of Epidemiology. Centre for Neuroscience, University of Melbourne, May 2005

*Ponsoby A-L. Bedding in Early Life and Childhood Asthma. Dean’s Lecture to the Australian National University Medical School, August 2005.

*Ponsoby A-L. What early life bedding should be advised for the primary and secondary prevention of childhood asthma? Lecture at the Royal Childrens Hospital, Melbourne, May 2005.

*Ponsoby A-L. The Role of EBV and HHV-6 Infection in Demyelinating Disease with a Consideration of Past UVR Exposure in the Ausimmune Study. Lecture at the Australian National University, Canberra, August 2005.


*Thomson R. Genome-wide association studies in founder populations: adding value by simultaneously testing for linkage using large families. Poster presentation to the American Society of Human Genetics Meeting, Salt Lake City, Utah USA; October 2005.

*Thomson R. Genome-wide association studies in founder populations: adding value by simultaneously testing for linkage using large families. Oral presentation to the Department of Integrative Biology, UC-Berkeley, California USA; November 2005.


*van der Mei IAF. Epidemiological research of Multiple Sclerosis: A focus on sun exposure and infant infections. Oral presentation at Biogen Idec Postgraduate Neurology Weekend, Melbourne, May 2005.


*Menzies Researchers
Appendix 2: PUBLICATIONS

Referred Journals


*Ponsonby AL, Lucas R, *van der Mei I. A potential role for UVR and Vitamin D in the induction of Multiple Sclerosis, Type 1 Diabetes, Rheumatoid Arthritis. Photochemistry and Photobiology.

Appendix 2: PUBLICATIONS


Reviews


* Menzies Researchers
## Community

Aurora Network  
Australian Cricket Society, Tasmanian Branch  
Bellerive Primary School  
Burnie Bridge Club  
Burnie Friendship Group  
Burnie Senior Citizens Club  
Clarence Market  
CMAR Marine Technology and Equipment  
Eye Spy Signs  
General Practice Training Tasmania  
Krambruck Pty Ltd  
Lenah Valley Garden Club  
Lindisfarne School for Seniors  
Lions Club of Devonport Mersey  
Lions Club of Glenorchy City  
Lions Club of Hadspern South Esk  
Lions Club of Huon  
Lions Club of Kentish  
Lions Club of Orford Spring Bay  
Lions Club of Sorell  
Lions Club of Wynyard  
Lodge Rosetta  
Moonah Ladies Probus  
Mount Lyell Lodge No 24 TC  
Navy Club Ladies Auxiliary  
North Bruny Country Women’s Association  
Page Seager Lawyers  
Post-Tel Ladies Club  
Print Mail Logistics Limited  
Retirement Benefits Fund Board  
Robert Fay & Associates  
Rodman Women’s Bowls Club  
Rotary Club of Howrah  
Rotary Club of Sorell  
St Helen’s District Hospital  
St Paul’s Lodge No 88 TC  
Tasmanian Alkaloids Pty Ltd  
Tasmanian ASIC Women’s Network  
Tasmanian Cricket Association  
Thirlstane Golf Club Associates  
War Widows Guild Of Tasmania  
Wellbeing Club  

## Everyday Angels

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<tr>
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<tr>
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### Income Statement

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<tr>
<td>Other income</td>
<td>278,832</td>
<td>388,088</td>
</tr>
<tr>
<td><strong>Total Revenue</strong></td>
<td><strong>5,871,765</strong></td>
<td><strong>5,377,310</strong></td>
</tr>
</tbody>
</table>

| **Expenses**            | $         | $         |
|                        | 31/12/05  | 31/12/04  |
| Salaries               | 2,524,528 | 2,304,377 |
| Salary on costs        | 640,707   | 717,244   |
| Co-location project contribution | 1,000,000 | 0         |
| General consultancy services | 338,993  | 327,295   |
| Scholarships           | 96,691    | 182,105   |
| New appointment expenses | 31,915  | 53,102    |
| Staff development      | 59,237    | 23,363    |
| Committee expenses     | 22,436    | 0         |
| Promotional activities - Marketing | 46,808   | 73,083    |
| Administration & operating costs | 227,603 | 405,903   |
| General travel         | 216,355   | 206,410   |
| Infrastructure charges | 20,770    | 104,109   |
| Minor equipment purchases to $10,000 | 57,030   | 119,418   |
| Hire of facilities and equipment | 37,720   | 69,435    |
| Repairs and maintenance | 43,063  | 29,451    |
| Electricity            | 9,085     | 0         |
| Depreciation plant and equipment | 64,222  | 88,425    |
| **Total Expenses**     | **5,437,161** | **4,703,719** |

**Operating Result**  
434,604  
673,591
## Balance Sheet

**AS AT 31 DECEMBER 2005**

<table>
<thead>
<tr>
<th></th>
<th>31/12/05</th>
<th>31/12/04</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td><strong>Current Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funds Held by University of Tasmania</td>
<td>3,763,392</td>
<td>2,367,406</td>
</tr>
<tr>
<td>Receivables</td>
<td>133,339</td>
<td>66,756</td>
</tr>
<tr>
<td>Prepayments</td>
<td>43,381</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total Current Assets</strong></td>
<td>3,940,112</td>
<td>2,434,162</td>
</tr>
<tr>
<td><strong>Non-Current Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property, Plant and Equipment</td>
<td>553,471</td>
<td>562,966</td>
</tr>
<tr>
<td>Less Accumulated Depreciation</td>
<td>(274,933)</td>
<td>(280,311)</td>
</tr>
<tr>
<td><strong>Total Non-Current Assets</strong></td>
<td>278,538</td>
<td>282,655</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>4,218,650</td>
<td>2,716,818</td>
</tr>
<tr>
<td><strong>Current Liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creditors and accruals</td>
<td>1,077,819</td>
<td>102,828</td>
</tr>
<tr>
<td>Income received in advance</td>
<td>73,557</td>
<td>0</td>
</tr>
<tr>
<td>Provision for Annual Leave</td>
<td>77,638</td>
<td>58,957</td>
</tr>
<tr>
<td><strong>Total Current Liabilities</strong></td>
<td>1,229,014</td>
<td>161,785</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td>1,229,014</td>
<td>161,785</td>
</tr>
<tr>
<td><strong>Net Assets</strong></td>
<td>2,989,637</td>
<td>2,555,033</td>
</tr>
<tr>
<td><strong>Non-Current Liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provision for Long Service Leave</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total Non-Current Liabilities</strong></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td>161,785</td>
<td>105,240</td>
</tr>
<tr>
<td><strong>Net Assets</strong></td>
<td>2,335,968</td>
<td>1,662,377</td>
</tr>
<tr>
<td><strong>Equity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening Retained Surplus</td>
<td>2,555,033</td>
<td>1,881,442</td>
</tr>
<tr>
<td>Add: Profit / (Loss) for the Period</td>
<td>434,604</td>
<td>673,591</td>
</tr>
<tr>
<td><strong>Total Equity</strong></td>
<td>2,989,637</td>
<td>2,555,033</td>
</tr>
</tbody>
</table>
1. Summary of Significant Policies

The University of Tasmania prepares general purpose financial statements which are audited by the Tasmanian Auditor-General. A copy of the latest audited statements is available, upon request, from Financial Services.

These financial statements represent those transactions and balances specifically pertaining to the Menzies Research Institute. The statements do not include all disclosures required by Australian equivalents to International Financial Reporting Standards.

Relevant accounting policies which have been adopted in the preparation of the attached Income Statement and Balance Sheet of the Menzies Research Institute are:

a) Basis of Accounting
The financial statements have been prepared on the accrual basis of accounting using the historic cost convention unless otherwise stated.

b) Trust Funds
The University of Tasmania holds a number of trust fund accounts on behalf of the Menzies Research Institute. Investment earnings in respect of these trust fund accounts is distributed to the Menzies Research Institute, however the trust fund account balances, totalling $639,532.68 at 31 December 2005, are not reflected in the attached Balance Sheet.

c) Plant and Equipment
Plant and equipment is brought to account, and carried at cost, where the value is greater than ten thousand dollars.

Plant and equipment is depreciated on a straight line basis over its useful life commencing from the time the asset is held ready for use. Depreciation rates for plant and equipment applicable during 2005 are 10% - 33%, and this is consistent with the prior year.

Gains and losses on disposals are determined by comparing proceeds with carrying amount. These are included in the income statement.

d) Creditors and accruals
These amounts represent liabilities for goods and services provided to the Menzies Research Institute prior to the end of the year which are unpaid. The amounts are unsecured and are normally settled within 30 days.

e) Employee entitlements
Wages and salaries, and sick leave
Liabilities for wages and salaries are recognised as payables in respect of employees’ services up to the reporting date. Sick leave entitlements provided to the employees of the University are non-vesting and are based on a cumulative sick leave system. Liabilities for non-accumulating sick leave are recognised when the leave is taken.

Annual leave
Liabilities for annual leave in respect to non-academic staff are recognised and measured as the amount unpaid at the reporting date at current pay rates in respect of employees’ service up to that date. Related on-costs have been included in the provision. Annual leave for academic staff is deemed to be taken in the year in which it is accrued, hence no provision is made in respect of these employees.

Long service leave
The University charges a levy on the salaries of certain staff and has assumed the liability for long service leave.

Statement of Certification

We certify that the financial statements reflect an accurate record of income and expenditure recorded through the University of Tasmania’s financial system, together with assets and liabilities specific to the Menzies Research Institute.

Mark Bennett
General Manager
Menzies Research Institute
3 April 2006

Garry Hennessy
Director
Financial Services