Menzies working to improve the health of indigenous Australians

The Menzies Research Institute is part of a collaborative team working to shed light on the causes of a serious illness which has an unusually high incidence amongst the Tiwi people of the Northern Territory.

The Tiwi population of Bathurst and Melville Islands, north of Darwin, has one of the highest incidences of end-stage renal disease (ESRD) in the world. ESRD occurs when the kidneys are no longer able to function at a level that is necessary for day to day life. Patients require dialysis or kidney transplantation to avoid a life-threatening accumulation of fluids and waste products in the body.

In 2003 approximately 30 per cent of all deaths in the Tiwi population were due to ESRD, which is a 60-fold increase in the rate seen in the rest of Australia. The average life expectancy for an Aboriginal person with the disease is a little over three years. The causes of ESRD are complex and we know that diabetes, high blood pressure, streptococcal infection and low birth weight may all play a part.

These known causes of ESRD are common conditions among all Aboriginal populations, yet the Tiwi population has a much greater incidence of ESRD than Aboriginal populations from other regions in the ‘top end’.

Researchers from the Menzies Research Institute, Menzies School of Health Research, University of Melbourne and University of Queensland believe a genetic study offers the possibility of finding some of the additional causes underlying ESRD in the Tiwi population.

The team will perform a genome-wide scan looking for genes which underlie the development of the disease. They plan to compare the genome of individuals who have severe disease at an early age with older Tiwi people who have little evidence of renal disease to find significant points of difference. This research is likely to improve understanding of the causes of chronic diseases like ESRD affecting both the Tiwi and other populations around the world.

A cure for ESRD is not possible until the causes of the disease are properly understood. This project has been welcomed by the Tiwi people, both for the insights it will bring into the disease which has such an impact on the health of their community, and for the opportunity that it will give them to better understand their genetic heritage.

As part of community consultation and discussions with the Tiwi people, it was agreed that an annual course on genetics would be offered to the new Tiwi College so that students can become familiar with genetics and what a knowledge of genetics could offer to their people. This course will be offered by volunteers from the Menzies Research Institute for one week every year.
The cancer research capability of the Menzies Research Institute is continuing to expand thanks to a new injection of funds from The Cancer Council Tasmania.

The Cancer Council will provide a three-year, $345,000 grant to establish the first dedicated cancer research position at the Institute, Tasmania’s premier cancer research facility.

The Cancer Council Tasmania’s Chairman Harvey Cuthill said that the appointment would help to strategically expand cancer research in Tasmania. “It is essential that we build critical mass in Tasmanian cancer research because this has the greatest potential to produce better outcomes for Tasmanians,” Mr Cuthill said.

Menzies Research Institute Director Professor Simon Foote says that the Institute has a strong background in the field of cancer research. “Our cancer research program is making a significant contribution to the growing body of knowledge on the causes and prevention of many types of cancer.

“We are confident that we will attract a researcher of the highest calibre to add momentum to our cancer research activities. “We welcome this partnership with The Cancer Council Tasmania as we work together for a healthier future,” Professor Foote said.

The Institute hopes to appoint The Cancer Council Tasmania Research Fellow by October this year.

Lung cancer is now the biggest cancer killer of women in Tasmania, overtaking bowel and breast cancer, according to statistics recently published by the Tasmanian Cancer Registry.

Registry Director Associate Professor Alison Venn says that these statistics, published in the recent Cancer in Tasmania: Incidence and Mortality 2003 report, confirm figures from 2002 that showed an increase in smoking-related cancers in Tasmanian women.

“We have known that lung cancer has consistently been the number one cancer killer in Tasmanian men for decades, ahead of bowel and prostate cancer,” Associate Professor Venn said.

“An increased uptake of smoking by women in the 1960s and 70s means that we are now beginning to see a similar effect in the number of female deaths from lung cancer.

“Women in Tasmania are paying a terrible price for their smoking behaviour. Lung cancer is only the tip of the iceberg when it comes to preventable health problems linked to smoking,” she said.

Biostatistician Dr Leigh Blizzard said despite the already well-publicised hazards of smoking, a relatively high proportion of Tasmanian women are smokers. Tasmania has the second highest prevalence of smoking among females, with only the Northern Territory having higher proportions of female smokers. Twenty-one per cent of Tasmanian women are regular smokers, compared to the national average of 16.3%.

“There seem to be two factors at play. Firstly, Tasmanian women are taking up smoking in proportions far above the national average. Seventeen per cent of the 14 to 19 year old females in our state are daily smokers, while the national average is 12%,” Dr Blizzard said.

“Secondly, Tasmanian women who took up smoking in their teens are
It is common knowledge these days that physical activity is important for good health. For instance, it can help to prevent health problems such as cardiovascular disease, hypertension, colon cancer, diabetes, obesity and depression. Despite this, only a minority of Australians perform the amount of physical activity recommended for optimum health.

The Institute’s expanded research program on the genetics of chronic disease will benefit from the recent opening of a new state-of-the-art facility. The new laboratory, located on the University campus, will house novel research on host response to malaria and investigations into the genetic basis for multiple sclerosis (MS) until our new building is completed in 2008.

Dr Blizzard said there is support available for smokers who wish to quit.

“For information and support to quit smoking, phone QUIT Tasmania on 137 848,” he said.

The Tasmanian Cancer Registry is housed at the Menzies Research Institute.

Good health being accelerated by Menzies

It is common knowledge these days that physical activity is important for good health. For instance, it can help to prevent health problems such as cardiovascular disease, hypertension, colon cancer, diabetes, obesity and depression. Despite this, only a minority of Australians perform the amount of physical activity recommended for optimum health.

General practitioners (GPs) play an important role in promoting good health, including encouraging their patients to get enough physical activity in their day. However, we don’t know a lot about how GPs go about assessing their patients’ physical activity or what is the best way for a GP to make this assessment.

The Menzies Research Institute is planning a program of study using accelerometers, small electronic instruments for easily and accurately measuring physical activity, to address gaps in knowledge regarding the assessment and improvement of physical activity in general practice.

Overall, we hope to develop practical ways of using accelerometers to make it easier for people to work with their GP to improve their own health.
Two symphonies for two icons

Two iconic Tasmanian institutions, the Tasmanian Symphony Orchestra (TSO) and the Menzies Research Institute, joined together in July to host a special musical event to raise funds for the Institute’s health and medical research.

More than 500 supporters attended the concert, dubbed Two Symphonies Celebrating Two Icons, and enjoyed the TSO’s magnificent performance of Beethoven Symphony No. 3 *Eroica*, and the exuberant Beethoven Symphony No. 7.

TSO Managing Director Nicholas Heyward said this was a unique opportunity for the Tasmanian community to experience a world-class performance while supporting the Menzies Institute’s globally significant research.

“This is the first time that two of Tasmania’s icons have joined forces to benefit medical research in the state. We are pleased to be able to support the excellent work of the Menzies Research Institute,” said Mr Heyward.

Funds raised from the event have been directed towards the Institute’s Childhood Determinants of Adult Health (CDAH) study, which is providing new insights into how lifestyle factors and physical characteristics in childhood affect health status in later life.

Many thanks to the Tasmanian Symphony Orchestra for hosting a glorious evening of music and to Fosters Australia, Hotel Grand Chancellor and Eye Spy Signs for their kind support of the event.

Northwest Tasmania’s Bride of the Year

A bevy of blushing brides dusted off their wedding gowns recently to raise funds for research into childhood diseases at the Menzies Research Institute. Northwest Tasmania’s Bride of the Year contest was generously organised for the eleventh year running by long-time Menzies supporter Mrs Bev Twibell.

This year’s event featured eight beautiful brides, along with musical entertainment and comedy performances. Devonport bride Jodie Bassett was named both Bride of the Year and Charity Bride of the Year, as well as walking away with the popular audience vote on the night.

Postdoctoral researcher Seana Paul attended the event as guest speaker to thank the audience for their generosity and outline research which is currently underway at the Institute.

The contest has raised significant funds for research at the Menzies Research Institute since its inception.

Mrs Twibell of Devonport, who is retiring from her organiser role this year, received a Medal of the Order of Australia (OAM) in January in recognition of her fundraising efforts for a variety of charitable causes.

We would like to extend our grateful thanks to Bev for her many years of dedicated support and advocacy for the work of the Institute. Her vision and energy are great inspiration to all of us!
The following papers from the Menzies Research Institute have been published since the last issue of the Bulletin.


An estimate of risk, adjusted for confounders, can be obtained from a fitted logistic regression model, but it substantially over-estimates when the outcome is not rare. The log binomial model is increasingly being used for this purpose. However this model's performance, goodness of fit tests and case-wise diagnostics have not been studied. Extensive simulations were used to compare the performance of the log binomial with other proposed approaches. This paper concluded that uncorrected use of the log binomial regression model is not recommended.


This retrospective cohort study aimed to examine the long-term psychosocial outcomes for women assessed or treated during adolescence for tall stature. Long-term follow-up showed that psychological outcomes among both treated and untreated women were poor and that the intended psychosocial benefit of treatment may not have been realized. The findings highlight the importance of attending to the mental health of adolescents presenting for management of conditions where self-concept and body image are a primary focus.


Osteoporosis is under-diagnosed, and rural communities often have limited technical resources for the assessment of osteoporosis. This study aimed to evaluate the impact of a pharmacist, trained in the use of a portable heel ultrasound device, in screening elderly rural women for risk of osteoporosis and determine whether those found to be at risk seek further help and treatment from their general practitioner (GP) following screening. Following promotion of the service, 345 women were recruited from 6 rural community pharmacies in Tasmania, Australia, and underwent quantitative heel ultrasound screening. Women were comprehensively educated on risk factors for osteoporosis and completed a calcium intake questionnaire. Results were forwarded to each woman’s GP, and the participants were followed up 3 months later to assess outcomes from the screening procedure. Approximately 20% of women were shown to be at high risk for osteoporosis; 58% of these were referred to their GP for further assessment. Sixty-eight percent of women who were screened discussed their results with their GP, and 11% underwent further investigation. Over one-third of women screened began medication for osteoporosis. It was concluded that pharmacist-provided screening for osteoporosis in rural areas is a potentially useful method to identify women at risk for fracture and a convenient time point for discussion of preventive therapy.


This paper describes the association between cartilage defects, bone marrow lesions, knee and hip radiographic osteoarthritis (OA), and knee pain. Knee pain in older adults is independently associated with both full and non-full-thickness medial tibial cartilage defects, bone marrow lesions, greater body mass index, and lower knee extension strength, but is not associated with radiographic knee OA. The association between radiographic hip OA and knee pain indicates that referred pain from the hip needs to be considered in unexplained knee pain.


Belimumab is under development for the potential treatment of autoimmune diseases, including systemic lupus erythematosus (SLE) and rheumatoid arthritis (RA). By January 2006, belimumab had completed phase II clinical trials in SLE and RA; a phase III clinical SLE trial is scheduled to begin later this year.


Brief cognitive tests such as the Mini-mental State Examination (MMSE) and the Informant Questionnaire for Cognitive Decline in the Elderly (IQQCODE) have been used to detect cognitive impairment and dementia in studies of stroke patients. However, there are few data on their validity for such use. We have evaluated their validity in detecting cognitive impairment not dementia (CIND) and dementia in a community-based sample of first-ever stroke patients. It was concluded that the MMSE and the IQCODE were individually poor at detecting CIND and dementia after a first-ever stroke. The combination was useful in detecting dementia but it does not replace the need for detailed neuropsychological tests.

**Grants**

The following grants have been awarded to the Menzies Research Institute since the last issue of the Bulletin.

The Cancer Council Tasmania
*Foote SJ (Postdoctoral Fellow to be appointed).

The Cancer Council Tasmania Fellowship. $313,635

Department of Health and Human Services Tasmania
*Foote SJ (Postdoctoral Fellow to be appointed).

Buttfield Postdoctoral Research Fellowship. $380,000

National Health and Medical Research Council (through Western Australian Institute of Medical Research)

The Australian Medical Bioinformatics Resource (AMBeR). $266,875

Department of Health and Human Services
*Foote SJ, *Venn A. Epidemiological Research. $516,157

National Heart Foundation Australia – Travel Grant
*Cleland V. Maintaining or increasing relative physical activity levels is associated with maintaining a healthy weight from childhood into adulthood: the Childhood Determinants of Adult Health (CDAH) study. $1,000

*Menzies researchers.
We thank our supporters for their generous contributions

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The Menzies Research Institute is also deeply indebted to those generous donors who wish to remain anonymous.

We were saddened by the passing of two of the Institute’s most committed supporters recently. Ms Rosina Gostling joined the Institute many years ago as a volunteer and was also one of our first Everyday Angels. Mr Michael Heynes was also a long serving and extremely committed volunteer. Our thoughts are with both Michael and Rosina’s families at this time.
Artists supporting medical research

The spirit of Christmas is shining through again this year to support the Menzies Research Institute’s medical research in Tasmania. You can show your support for the work of the Institute this festive season by sending your friends and acquaintances an exclusive art card from the Menzies Research Institute’s 2006 Art of Christmas range.

Artwork donated by five acclaimed artists features on the 2006 range of cards. With the support of local businesses, original pieces by Tasmanian artists Carmel Burns, Nigel Lazenby, Rebecca Murdoch, Michael Weitnauer and Stewart Wells have been reproduced into high-quality Christmas cards for purchase by businesses and the community.

The unique cards will be available for sale to the general public from 20 September. You can purchase the cards at the Menzies Research Institute, the Combined Charities Christmas Card and Gift Shop in Hobart or by mail order. Businesses and individuals also have the opportunity to order personalised corporate Christmas cards printed with their logo and greeting of choice.

Orders for personalised cards close on the first of November for delivery by the first of December. There are limited quantities available, and you are advised to order early.

For more information, see the enclosed card order form, refer to the Institute’s website or phone Julia Garry, Development Officer, on 6226 7750.

The 2006 ‘Art of Christmas’ has been made possible with the generous assistance of our supporting artists, Direction by Design, Spicers Paper, the Printing Authority of Tasmania, Artery, Wrest Point, Fosters Australia, Pumpkin Prints, Osborne Images and Display Works.

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