

WA Centre for Health & Ageing Research News

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Government of Western Australia
Department of Health

Gift made in hope of offsetting burden of alzheimer's



Ms Vidovich, Mrs and Mr Bell, Dr Penny Flett

A South Perth couple who are in their eighties – Ron and Peggy Bell – have made a \$100,000 donation to establish a new Fellowship to accelerate research into Alzheimer's disease.

Ms Mandy Vidovich a Clinical Neuropsychologist at WACHA, has been appointed the inaugural Bell Research Fellow and will be clarifying the interaction between genetic makeup, lifestyle and memory. Mandy said a concerted effort was needed to help Australia's ageing population avoid the burden of cognitive dysfunction.

"As the population ages, the risk of dementia increases and presently there are no cures. The financial gift from Mr and Mrs Bell will be put to good use to explore practical ways to change this," she said.

"WACHA is an enormous asset to the Western Australian community," Mr Bell said. "It is our

pleasure to help it carry out its mission by supporting leading researchers. I hope our contribution will encourage others to offer their financial support to the Centre."

WACHA Research Director, Professor Osvaldo Almeida, said philanthropic support for the Centre's research programs was always important, but never more so than in today's financial climate.

"We are extremely grateful to the Bell family for their generous support, and for the setting up of this Fellowship that will do so much to contribute to the professional development of our talented young researchers."

It is estimated that there are at least 227,300 people with dementia in this country, a number expected to rise to around 731,000 by 2050.

From the Director's pen

Since our last newsletter the WA Centre for Health and Ageing has been tremendously productive. This has resulted in numerous important discoveries. While our population is living longer, it is important that we do everything we can to make those extra years of longevity healthier. Not only will this help to improve people's quality of life as they age, but healthier populations require less health treatment, making our health care system more sustainable in the long term.

Translational research is at the core of WACHA's mission. We are committed to improving the lives of our community by applying our discoveries to extend healthy life. Below are some of our recent new discoveries:

- A link between depression, medication and fall injury. These findings have prompted calls for fall prevention to be a priority when treating older adults with depression.
- Dementia rates among Indigenous West Australians, to be among the worst in the world and more than five times

higher than non-Indigenous Australians. This discovery was made possible by the use of a culturally appropriate testing tool that was developed by WACHA.

- High levels of homocysteine contributed to an increased risk of depression in people over 70 years old. This is an important step forward in understanding what leads to the development of depression in later life.

These are great examples of how our research with your support, has a positive effect on extending healthy lives in our community and beyond. These achievements have been made possible through a collaborative effort with the assistance of our partners, supporters and research volunteers. We welcome new colleagues to the Centre; Drs Andrew Ford, Helman Alfronso and Irne du Plessis as well as Mr Ben Badcock.



Leon Flicker, Director



Study proves that older adults are mentally tough



New research from the WA Centre for Health and Ageing sheds light on older adult mental toughness. The study found that rates of depression in older Australian adults are not as high as previous research studies have indicated.

"Depression amongst older adults is the exception not the rule in older adults", says Dr Jon Pfaff the study's lead author.

"These results are very exciting for two reasons: we were able to confirm that poor physical health has a significant impact on mental well being and, more importantly, we showed that older people are mentally very resilient, as only significant physical disability seems to undermine good mental health. It is as if the mind does

not suffer the effects of ageing in the same way that the body does; our minds remain young until very late in life", says Professor Osvaldo Almeida, Director of Research.

Previous studies have shown that this age group responds well to treatment.

"With about 80% of older Australian adults visiting their general practitioner at least once a year, this places GPs in a unique position to detect and address depression in this age group" says Dr Jon Pfaff.

The study included surveying over 20,000 adults aged 60 years or more Australia wide, and was funded by grants received from the National Health and Medical Research Council (NHMRC) and from beyondblue: the national depression initiative.

An estimated 8% of older Australian adults suffer from depression at some point and it is predicted that depression will be the second leading cause of disability worldwide within the next 10 years, clearly making this a major public health problem.

Distinguished Oxford Professor visits Perth



WACHA together with the ANZSGM are proud to present distinguished Prof Paul Dieppe in September. Professor Dieppe who is a rheumatologist based in the United Kingdom. Among many appointments, he is currently the Chair of Clinical Education Research, Peninsula College of Medicine and Dentistry, United Kingdom and Honorary Professor at the University of Oxford. He has special interests in osteoarthritis, the determinants of pain and disability in people with osteoarthritis, the relationships between joint damage and symptoms, placebo response, evidence-based interventions including the provision of joint replacements and Trust and Dignity in Health Care. Professor Dieppe is the editor of a major rheumatology text, the author of 10 books and over 400 papers.

He will be presenting a lecture on Friday 4th September 2009.

The talk will be pitched at medical professionals; however all are welcome to attend. RSVP essential to reserve your seat email wacha@uwa.edu.au



Scientific breakthrough links gene that controls immune response to depression

These findings allow us to better understand depression risk factors

WACHA's researchers have pinpointed a polymorphic gene that determines the risk of depression in older men. "This marks the first time researchers have shown that men who display a polymorphism on chromosome one have a greater chance of displaying depressive episodes," says Professor Osvaldo Almeida, WACHA's Research Director

This study has demonstrated that the risk of depression was greatest amongst people who carry a genetic polymorphism of the C-reactive protein (CRP) gene and is not linked to increased levels of CRP, as previous scientific studies had suggested.

C-reactive protein (CRP) is a protein found in the blood in response to inflammation. The CRP gene is located on the first chromosome (1q21-q23). "Until this point, it was not completely clear what role the CRP gene played in the pathogenesis of depression. Unraveling the mechanisms behind depression is very exciting," said Professor Almeida.

"The results of our study suggest that these genetic variations lead to a relative deficiency in an individual's ability to address the physiological changes that occur as a result of acute stressful events. The consequence of such a deficit is that the body takes much longer to be restored to full health, and depression may ensue because of ongoing high

circulating levels of chemicals known as cytokines," explained Professor Almeida.

The researchers used the Australian electoral rolls from 1996 and 1998 to randomly sample 12,000 men, aged 65 and older, living in Perth, Western Australia. Of these men 3,700 consented to donate a blood sample for genetic analysis. Other health and lifestyle factors were collected and a Geriatric Depression scale was completed. Of these 4.9% of the sampled men showed clinically significant symptoms of depression. The study involved analysing the genetic makeup of 3,700 men aged 65 years or older.

"These findings allow us to better understand depression risk factors and therefore will equip us with improved treatment and management methods," says Professor Osvaldo Almeida.

"We already know that depression is prevalent amongst older Australians with an estimated 8 per cent of older Australian adults suffering from depression at some point, making this a major public health problem."

Although the results are promising, Professor Almeida said the story was far from over. "The next step is to use these findings to better manage the treatment of the depression and that's a real challenge. I think a lot of work has to go into that."

WACHA partners with the MBF Foundation to rewrite the future of frailty



WACHA has been awarded a grant to find out how frailty in older age can be prevented or even reversed.

The funding, provided by the MBF Foundation, will enable researchers to analyse the lifestyles of more than 12,000 Western Australian men looking for clues on how mental and physical lifestyle factors may sustain healthy ageing.

Director of Research Professor Osvaldo Almeida said this study is aimed at determining how lifestyle, medical and psy-

chosocial factors interact to boost longevity and freedom from disability.

"It's still not entirely clear why we become frailer as we age – but the reduction of certain stressors in our lives may help prevent illness and disability as we get older, so we're hoping to identify those specific risk factors that may cause us to become frail and ill," he said.

"The aim of our study is to have direct effect on health promotion and policy, and lead to the creation of public information about how people can modify or improve their lives for healthy ageing."

Chair of the MBF Foundation Steering Committee Dr Christine Bennett said the findings would help increase understanding of what people do, or can do, to live healthier, longer lives.

"Not only will this help to improve people's quality of life as they age, but healthier populations require less health treatment, making our health care system more sustainable in the long term."

Renovating a place of discovery

With a thriving research program, WACHA has faced the need to renovate and re design its existing space. The Royal Perth Hospital Medical Research Foundation Inc awarded WACHA an infrastructure grant. These funds have contributed to the necessary upgrade of the ground floor of Ainslie House. The funds have enabled the addition of extra intervention testing rooms and new office space, which will create a research hub on the ground floor of Ainslie House at Royal Perth Hospital. We will be holding a grand opening and would like to invite you to view our new research hub on Wednesday 23rd September 2009.

Make someone's day and donate today!

Our researchers are finding ways to extend healthy life, helping to advance effective disease prevention for everyone. The results of their work touch many lives every day. If you can help our Centre to help make a vast improvement in more people's lives donate today. To find out more about the Centre's research advances visit www.wacha.org.au

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