MEDIA RELEASE: 11 June, 2013

Extraordinary funding boost for Alzheimer’s research in the Illawarra

The Minster for Mental Health and Ageing, the Hon Mark Butler MP, has today announced that, with an additional $3 million in funding from the Department of Health and Ageing, six dementia-related project grants submitted to the National Health and Medical Research Council (NHMRC) in 2012 will now receive extraordinary funding.

The Illawarra Health and Medical Research Institute, based on the University of Wollongong (UOW), was the only New South Wales applicant to receive the funding, with almost $430,000 going towards a project examining the role that vitamin-B12 plays in protecting the brain against neuron death; said to underlie several dementia-related diseases, including the devastating Alzheimer’s Disease (AD).

The project will be led by dual Australian Research Council Future Fellow/NHMRC Senior Research Fellow, Professor Brett Garner, who has proposed that ageing and neurodegenerative diseases, including AD, are associated with a “functional deficiency” of vitamin-B12.

“It appears that, in AD, the vitamin-B12 becomes trapped within lysosomes; specialised compartments inside neurons,” explains Professor Garner.

“It is already known that lysosomes become dysfunctional with ageing and in AD. We have evidence that this prevents vitamin-B12 from performing its normal function which could lead to the over-production of toxic metabolites, such as homocysteine and methyl malonic acid, in the brain. This results in a vicious cycle, as these molecules contribute to further neuron death.”

With the NHMRC funding, the team will now use in vitro and in vivo models of ageing and AD to define how lysosomal perturbations impact on vitamin-B12 utilisation and key metabolic functions.

“The long-term aim of this work is to define new pathways and identify pharmacological agents that could be used to reduce the production of these neurotoxic metabolites,” concludes Professor Garner, who is working with PhD student, Peter Zhao, on the research.

In making the announcement, the Minister acknowledged that dementia is forecast to impact almost a million Australians by 2050.

“We have made dementia a national priority area,” he said.
About IHMRI

The Illawarra Health and Medical Research Institute (IHMRI) is a joint initiative of the University of Wollongong and Illawarra Shoalhaven Local Health District.

IHMRI's goal is to foster, support and grow health and medical research in the Illawarra by connecting and supporting academic and clinician researchers around research problems of relevance to the region and the world. IHMRI provides research leadership, coordination, infrastructure and facilities to more than 500 academic and clinical researchers throughout the Illawarra.