World class facility promotes excellence in medical research

Professor Brett Garner

It is with a great deal of excitement that I join the University of Wollongong as one of the inaugural research fellows of the Illawarra Health and Medical Research Institute. Several factors led to the decision to relocate my research team to Wollongong, including the unique nature of the Institute's research vision and the substantial biomedical research expertise that already exists on the University campus.

A major focus of the Institute is to maximise the translation of research findings from basic molecular science through to the human clinical setting, an approach which is currently lacking in many Australian medical research institutes. This has been addressed at the Illawarra Institute by the establishment of consulting rooms and clinical research facilities along with extensive state-of-the-art biomedical research laboratories - all within the one facility.

Another important factor that has influenced my decision to move to the Illawarra is the substantial infrastructure and expertise that all ready exists on the Wollongong campus. Cross-disciplinary collaborative research is well known to accelerate the process of scientific discovery and is crucial for health and medical research.

The University of Wollongong has a very strong track record in life sciences “basic” research. This includes internationally renowned research groups who have established facilities for analytical research and for pharmaceutical development. The Institute, along with the Graduate School of Medicine and the strong research foundations existing in other faculties of the University, place us in an excellent position to continue to expand medical research capacity in the Illawarra.

My own area of research focuses on the role that lipids (such as cholesterol) play in regulating the pathways that lead to the death of neurons in the brain in disorders such as Alzheimer’s disease. Alzheimer’s disease is the major cause of dementia and due to increasing life expectancies the number of people in Australia living with dementia is expected to reach well over 1 million by 2050.

Alzheimer’s is a devastating disease characterised by neuron loss that results in shrinkage of brain regions important for memory and learning. Currently there is no cure but our research is generating new information that we are exploiting to develop drugs to modify lipid metabolism in such a way that Alzheimer’s may be prevented or stalled at the very earliest stages.

There is a misguided notion that research excellence is harder to achieve at regional universities than at larger institutions in capital cities. Most of my research to date has been conducted at large research-intensive institutions in Australia (University of Sydney, University of NSW) and overseas (Oxford). Based on my experience, I strongly believe that it is more important to establish a critical mass of research excellence in selected areas in order to succeed.

The establishment of the Illawarra Health and Medical Research Institute ensures that such a critical mass of researchers is now firmly secured. This will inevitably lead to the attraction of further research fellows and clinicians who will together contribute to the development of medical research excellence in the Illawarra. I look forward to working with my colleagues and the community to tackle the important issues that impact on the health and wellbeing of people in our local communities, with obvious flow-on benefits to people all over Australia and, indeed, around the world.

Brett Garner is a professor of biochemistry in the School of Biological Sciences at the University of Wollongong. He is a Principal Research Fellow at the Illawarra Health and Medical Research Institute, and a conjoint Principal Research Fellow at Neuroscience Research Australia. Professor Garner holds a Future Fellowship from the Australian Research Council and an honorary Senior Research Fellowship from the Australian National Health and Medical Research Council.