Future Generation Professor to head interdisciplinary centre at the University

Future Generation Professor
Jonathan Manton

University of Melbourne Future Generation Professor and electrical engineering researcher, Professor Jonathan Manton, has received a Future Summit 2009 Australian Leadership Award, and $17.5 million in funding from the Federal Budget establish the University’s interdisciplinary Centre for Neural Engineering.

The new Centre will bring together researchers from the Faculties of Engineering, Medicine and Science, in line with the world-wide convergence of the physical sciences and the life sciences.

“I’m particularly excited about both the research directions and the cross-disciplinary top-down approach to the research agenda itself,” Professor Manton says.

“It’s recognised world-wide that we have entered the era where the physical sciences and the life sciences will converge, and the initiative to establish the Centre for Neural Engineering came from the vision of wishing to bring researchers together.”

With the University’s contribution, funding to create the future home of the interdisciplinary Centre for Neural Engineering totals $34.2 million dollars.

Both the funding for this interdisciplinary centre and the Australian Leadership Award recognise Professor Manton’s achievements in fields which range from pure mathematics (e.g. commutative algebra, algebraic geometry, differential geometry) to engineering (e.g. signal processing, wireless communications).

According to Professor Manton, some of the top institutes overseas have already established such centres, where mathematicians, engineers and neuroscientists work together in the pursuit of a common research goal.

“Australia has tremendous strengths in neuroscience and in engineering; this is the ideal opportunity to combine these strengths.”

And the Centre’s contribution to education is equally important - the next generation of new “hybrid” scholars who are versed in both the physical sciences and the life sciences will be trained there. They will be scholars who will be highly sought after for their problem-solving skills and breadth of knowledge.

This interdisciplinary approach will yield not only a new generation of researchers and scientific discoveries, but also help build new pedagogical approaches to research.

“While many different disciplines have studied networks of neurons, often each discipline formulates
questions which are pertinent to their own discipline,” says Professor Manton.

“What we will do is ensure that the research remains focused, and that the research agenda is driven by both the physical and life scientists in a top-down, coordinated fashion.”

Professor Manton has previously been a Postdoctoral Research Fellow and subsequently a Queen Elizabeth II Fellow from the Australian Research Council in the Department of Electrical and Electronic Engineering at the University.

The Future Summit 2009 Future Leader Awards provide the opportunity for outstanding new generation leaders to be recognised for their achievements and to contribute to a vision for Australia’s future.