



Powerful new MRI keeps Queensland scientists at forefront of brain science

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25 March 2007, Neuroscientists at the Queensland Brain Institute (QBI) are astounded at the detail available to them in brain images being generated by UQ's new Magnetic Resonance Imaging (MRI) spectrometer.

QBI Director Professor Perry Bartlett said the new MRI represented a quantum advance in brain-imaging technology.

“This is an extremely exciting development. We've learned a lot about how we think the brain works, but we've never been able to look at it in real time,” Professor Bartlett said.

“This imaging capability will allow us for the first time to rapidly identify and really interrogate the mechanisms controlling brain function and apply these discoveries to the treatment of disease.

“And it puts Queensland right in front of the pack ... leading the world in discovery in this area.”

Professor Bartlett said QBI scientists were currently using the technology to look at molecules they believed would help with the regrowth of damaged nerve cells following trauma such as spinal cord injury.

“If this proves successful in animal models we could conceivably go to trials within the next 18 months to two years,” he said.

“Imaging technology such as this is vital if we are to address the overwhelming incidence of neurological disorders on the community.”

Located at The University of Queensland's Centre for Magnetic Resonance (CMR) and purchased with the assistance of Qld Government Smart State Funding, the new 16.4T MRI wide-bore spectrometer is one of fewer than six such machines anywhere in the world.

CMR Acting Director Professor Ian Brereton said the technology enabled scientists to obtain exquisitely detailed images of intact biological specimens, at spatial resolution approaching the cellular level.

“This instrumentation is a key addition to the imaging capacity being built at this university to support major initiatives in molecular imaging, cognitive and anatomical neuroscience, biomarker development and nanotechnology,” Professor Brereton said.

“As part of the Queensland NMR Network, these world-class facilities will provide all researchers throughout Queensland and the region with access to state-of-the-art imaging technology and expertise.”

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