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## MEDIA RELEASE

### **New technologies to come from stronger links with industry**

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Collaboration between The University of Queensland and world renowned microscope maker Carl Zeiss has taken another leap forward in the latest round of Smart State Fellowship grants.

The Queensland Government has awarded Queensland Brain Institute (QBI) Research Fellow Dr John Power a three-year \$150,000 fellowship to continue research into the cellular mechanisms responsible for emotional learning in the brain.

"I'll be looking at changes that are occurring within the cells of the amygdala, part of the brain that has particular relevance for anxiety disorders," Dr Power said.

Amygdala dysfunction has been implicated in a range of anxiety disorders, including post-traumatic stress and addiction.

A key part of Dr Power's fellowship will be collaboration with Zeiss in developing new microscope technologies, a move which has long-term implications for the emerging field of neuroscience in Australia.

"Working with Zeiss to improve and develop microscope design will have a raft of benefits for Queensland and Australia," Dr Power said.

Until recently, high resolution laser scanning confocal microscopy has been designed primarily for physicists and anatomists that used fixed tissue, not for high-speed imaging of neurons.

"As it's an emerging field, neuroscience has particular technological needs," Dr Power said.

"Put simply, living cells don't like to be subjected to lasers, so we have to come up with new ways of mapping and observing what's happening in the amygdala – as well as other parts of the brain.

“By working closely with Zeiss, we'll be able to develop new systems that meet our need to capture images of live cells.

"Collaboration with Zeiss would ultimately mean early access to state-of-the-art technology in Queensland."

QBI Director Professor Perry Bartlett said the industry partnership with Zeiss was the first step in what he hoped would be a long-term relationship with the international science technology specialist.

“It's an exciting development and one of several new initiatives we're exploring with Zeiss,” Professor Bartlett said.

The 37-year-old Dr Power completed his PhD in Chicago Illinois in 1999 and has published more than 20 scientific papers, five of which have appeared in the Journal of Neuroscience. Dr Power is currently a Research Fellow in QBI's Neural Plasticity Laboratory, led by Professor Pankaj Sah.

The Queensland Brain Institute was formed in 2003 as part of the Queensland Government's Smart State Initiative, building on a long history of neuroscience at The University of Queensland.

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