

Profile – Dr. Bernadette Murphy DC, PhD



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The JCCA is delighted to announce that Dr. Bernadette Murphy has joined the Editorial Board of the Journal of the Canadian Chiropractic Association.

Dr. Bernadette Murphy is an Associate Professor at the

University of Ontario Institute of Technology (UOIT). After graduating from CMCC in 1989, she moved to Auckland, New Zealand where she completed her MSc and PhD in Human Neurophysiology at the University of Auckland. She was a fulltime faculty member in the Department of Sport and Exercise Science from 1999–2008, where she established an MSc in Exercise Rehabilitation. In January 2008, she returned to Canada and took up the position in the Faculty of Health Sciences at UOIT.

The overall theme of her research is neural adaptation in humans and the role of physical interventions such as manipulation, myofascial release and exercise in aiding the re-establishment of meaningful neural connections. In order to measure altered neural function in humans, she has acquired skills in a number of non-invasive techniques which can be used to measure changes in neural processing and function in humans. These include nerve stimulation, somatosensory evoked potential techniques to measure processing of sensory input by the brain, electromyography to measure electrical activity in muscles, and transcranial magnetic stimulation, which is used to investigate the output of the human motor cortex. Just prior to leaving Auckland, she was funded for study which used functional magnetic resonance imaging (fMRI) to measure changes in brain function with exercise.

She has supervised 3 PhD and 7 MSc students and she has 24 peer reviewed publications since 2002 in journals such as *Spine*, *Clinical Neurophysiology*, *Experimental Brain Research* and *JMPT*.