

### Canada's next university-based Chiropractic Research Chair



**Dr. Mark Erwin, DC, MSc**  
CIHR Senior Research Fellowship/Chiropractic  
Research Chair Award  
Institute of Medical Science, Faculty of Medicine,  
University of Toronto

In 1997 Dr. Mark Erwin began research training in the Master's of Science programme at the Institute of Medical Science at the University of Toronto. He continued to see patients throughout his graduate programme since he enjoyed the clinical encounter and felt that the role of "clinician – scientist" was an excellent model. During the course of his Master's degree studies he developed a project that seemed to offer the challenge and complexity deserving of further study, and therefore he passed the trial by fire transfer examinations in 1999 to move from the Master's programme directly into the PhD stream.

Dr. Erwin was continually frustrated by the clinical encounter of a patient suffering from degenerative disc disease that was refractory to both standard medical as well as chiropractic care. He clearly didn't like it when there was nothing that could be done for the patient ... from any discipline. Therefore he set out to try to shed some light on a vexing problem for all health disciplines; what to do about degenerative disc disease.

Dr. Erwin's research concerns the observation that certain animals are spared from developing degenerative disc disease whereas others (including humans) are not. There

is a fundamental difference in the cell populations of the disc nucleus amongst these species differences and Dr. Erwin has relentlessly investigated what these differences are and how they function. He has now identified certain species of proteins produced by these cells of interest and has evaluated expression of important genes unique to chondrogenesis. His goal is to some day be able to treat degenerative disease of cartilage matrix at the molecular level so as to slow down, reverse or even prevent degenerative disc disease. The notion appeals to him because it is a clinical problem that faces all health-care disciplines and brings together many fields of study including histology, pathology, physiology, biomechanics, clinical epidemiology, surgery, rheumatology, genetics and molecular biology.

Dr. Erwin has found that the experience of doctoral studies though daunting, has enriched his professional career beyond description. He continues to see patients as he is completing his doctoral work by September, and preparing for his post-doctoral training. He hopes to be able to help mentor other investigators yet to come and make their path a little easier since he thinks that he's made all of the mistakes possible. Dr. Erwin is "*delighted beyond words to be awarded the second in Canada – Chiropractic Research Chair*" and is "*grateful to the Canadian Chiropractic Association, Canadian Chiropractic Research Foundation, Ontario Chiropractic Association and CIHR*" and is "*privileged to join Dr. Greg Kawchuck in this honour*".

**Investing in people** – this has been the driving principle of the Canadian Chiropractic Association (CCA), the Canadian Chiropractic Research Foundation (CCRF) and now the Ontario Chiropractic Association (OCA). The Ontario Chiropractic Association has provided a wonderful opportunity to foster the development of our intellectual research capacity. By supporting university – based chiropractic researchers and in particular this Chiropractic Research Chair, they provide opportunities for chiropractic researchers to assume leadership roles and mentor future young researchers. Collaborative approaches enable our integration into the health care system and the university system and the OCA is to be commended for such leadership.

INVESTING IN PEOPLE HAS PAID BIG DIVIDENDS.

Dr. Pierre Côté DC, PhD, a CIHR *New Investigator Award* recipient, obtained a Master's degree in Surgery and epidemiology from the University of Saskatchewan. He completed his PhD in epidemiology and the collaborative program in bioethics at the University of Toronto. Côté is an assistant professor in the Department of Public Health Sciences, Faculty of Medicine at the University of Toronto, a Scientist at the Institute for Work and Health, and an Adjunct Professor in the Department of Graduate Studies and Research at CMCC. He is a member of the Scientific Secretariat of the 2000 - 2010 Bone and Joint Decade Task Force on Neck Pain. Côté is an Assistant Editor of the JCCA. His research interests focus on the epidemiology of disability related to musculoskeletal pain and depression, including the impact of health care delivery on the recovery of soft-tissue injuries.



**Dr. Pierre Côté, DC, PhD**

**CIHR  
New  
Investigator  
Award**

**Dr. Jason Busse, DC, MSc**

**CIHR  
Fellowship  
Award**



Dr. Jason Busse DC, MSc, a CIHR *Fellowship Award* recipient, has pursued graduate studies at McMaster University in the Department of Clinical Epidemiology and Biostatistics. Currently, Dr. Busse is completing an invited Cochrane review on the impact of therapeutic ultrasound on fracture healing and, with the assistance of Dr. Mohit Bhandari and Dr. Gordon Guyatt, has designed a multi-centre randomized trial to further clarify the role of ultrasound in fracture healing. The initial pilot project will be submitted to CIHR this summer, and Smith & Nephew has already committed \$400,000.00 to support this trial.

Dr. Jeff Muir MSc, DC, a recent CIHR *Fellowship Award* recipient, holds undergraduate degrees in Biology and Physiology from the University of Western Ontario and a Masters degree in Medical Science from McMaster University. In addition to private practice, Dr. Muir remains active in research, holding the position of Research Fellow in the Department of Nuclear Medicine at McMaster University. His main research focus is on natural treatments for osteoporosis.



**Dr. Jeff Muir, MSc, DC**

**CIHR  
Fellowship  
Award**