Canadian Chiropractic Research Bulletin

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IN THIS ISSUE:

THE CCA MISSION STATEMENT

The Mission of The Canadian Chiropractic Association is to help Canadians live healthier lives by:

1. informing the public of the benefits of Chiropractic,
2. promoting the integration of Chiropractic into the health care system,
3. facilitating chiropractic research.

The CCA Research Committee Members

Dr. Frank Mangoni (NB)- Chair
Dr. Debbie Brake-Patten (NF)
Dr. Richard Giguère ((PQ)
Dr. Vince Adams (PEI)
Dr. John Corrigan (SK)
Dr. Stan Gorchynski (ON)
Executive Committee liaison

Chair's Message – Time to Invest in Research

Dr. Frank Mangoni DC
New Brunswick
Chair, CCA Research Committee

We, as individual chiropractors, are truly fortunate. We work in a profession that allows us the opportunity to impact people's lives by treating neuromusculoskeletal conditions, teach prevention and promote wellness.

We are also, as a profession, truly fortunate. Over the last several years, chiropractic has experienced an increase in the number of highly qualified researchers working at very prestigious institutions all across the country. Many researchers are working in university settings as full-professors. The profession now has University Chairs in British Columbia, Alberta, Manitoba, Ontario and Quebec.

The greatest barrier we face in establishing new chiropractic research positions in universities is funding. Ongoing strategic planning by both the CCA Research Committee and the Canadian Chiropractic Research Foundation (CCRF) have focused on future funding for these initiatives. We are also promoting Canadian researchers and their work both nationally and internationally. Securing new funding while increasing CCRF membership is the only way the profession can move closer to its ultimate goal of having at least one University Chair in every province.

Over the last few months, several provincial associations have made significant commitments with respect to chiropractic research. Every member of the Manitoba Chiropractors' Association, New Brunswick Chiropractors' Association, Council of the Nova Scotia College of Chiropractors and British Columbia Chiropractic Association has become a voting member of the CCRF. This clearly highlights the importance of this program and serves to challenge chiropractors in other provinces to get onboard.

Despite the recent influx of new members to the CCRF, funding for future research initiatives remains critically low. Without question, research is one of the most effective ways for the chiropractic profession to evolve and enhance its credibility. Now is the time to invest in research. There is a great need for new membership to the CCRF and I encourage all chiropractors to do this by logging onto the CanadaHelps web site. www.CanadaHelps.org.

Next CCRF University Chair/ Professorship

The next CCRF Professorship will be at the University of Manitoba in Winnipeg. The position will be advertised in early 2008. It starts with an investment of $500,000 and is funded by the CCRF, the Manitoba Chiropractors' Association, the University of Manitoba and Manitoba Health. The 240 chiropractors in Manitoba committed $330,000 over 5 years. The Manitoba government put up $170,000. The CCRF acknowledges the tremendous assistance of the entire MCA Board and in particular, Dr. Greg Stewart, Dr. Rob Palaschuk, Ms Pam Wylie, Dr. Martin Gurvey, Dr. Sony Canteenwala, Dr. Darell Minuk, Dr. Ernie Miron, and Dr. John Toth.

Current CCRF/CIHR Competition

The current competition (September 2007) provides for up to 3 Chiropractic Research Chairs. The results of the competition will be announced in April/May 2008. CIHR's contribution to the amount available for this initiative is subject to availability of funds voted annually to CIHR by parliamentary appropriations, and the conditions that may be attached to them by both CIHR and also CCRF.

Research Projects of Note

Canada Foundation for Innovation

Dr. Jean-Sebastien Blouin DC, PhD has won an operating grant of $320,000 for a project titled: Neurophysiology of the Cervical Spine: Application of Robotics and Electroencephalography to Injury Prevention, Assessment and Rehabilitation. The total project value is $320,000 and the CFI portion is $119000. The other partners are UBC and the BC Knowledge Development Fund. This means he will have some extraordinary (and unique) equipment in his lab! Dr. Blouin holds the CCRF/CIHR Chiropractic Research Chair and also the CCRF Professorship in Spine Biomechanics and Human Neurophysiology.

AVIVA Canada

Dr. Pierre Côté DC,PhD and his co-PI's have been awarded an extraordinary grant.

Côté P (PI), Cassidy JD (co-PI), Carette S (co-PI), Boyle E, van Tulder M, Ammendolia C, Frank JW. 2007- 2010 ($2.017, 320). The University Health Network Whiplash Intervention Trial: A Randomized Clinical Trial of the Effectiveness and Cost-Effectiveness of AVIVA's Premiere Health care Program in Patients with Whiplash-associated Disorders.

Researchers of Note

Dr. Pierre Côté DC, PhD
University of Toronto

Dr. Côté is an Assistant Professor in the Department of Public Health Sciences in the Faculty of Medicine at the University of Toronto. In addition, he is a Senior Scientist at the University Health Network in Rehabilitation Solutions at the Toronto Western Hospital. Dr. Côté holds a noteworthy New Investigator Award from the Canadian Institutes of Health Research.

In 2007 he published 8 papers in very prestigious journals such as the Journal of Occupational and Environmental Medicine, Spine, Quality of Life Research, Arthritis Care and Research and the American Journal of Epidemiology. The areas of publication include whiplash injuries, multidisciplinary rehabilitation, guidelines, employer-worker relationships, and return to work trajectories (see Recent Publications).

Dr. Côté is the Principal Investigator in a very significant trial, the UNIVERSITY HEALTH NETWORK WHIPLASH INTERVENTION TRIAL. The total amount awarded is $2,017,320 from Aviva Canada and Dr. JD Cassidy and Dr. S. Carette are the co-PI's.

Whiplash is the most common traffic injury, affecting 83% of people involved in motor vehicle collisions. It results in a significant burden of pain, disability and health care utilization. Preventing chronic whiplash is a priority for clinicians, insurers, and policy makers. However, whiplash injuries are resistant to treatment and few of its prognostic factors are modifiable through intervention. One of the rare factors amenable to change is the provision of timely and effective clinical care. To date, no randomized trials have investigated the effectiveness of a coordinated and staged multidisciplinary rehabilitation program aimed at improving the health outcomes of patients with whiplash-associated disorders. Moreover, it is not known whether rehabilitation programs are superior to physician care in promoting better health outcomes. Overall, there is a need for a pragmatic randomized controlled trial to investigate what program of care yields the best outcomes for patients.

The research design in this study is a three-arm pragmatic randomized controlled trial. Participants will be randomly allocated to receive one of three programs of care: 1) the "Soft Tissue Injury Care Model"; 2) the "Pre-approved Framework Guideline for Grade I and II Whiplash Associated Disorders" recommended by the Financial Services

Commission of Ontario; or 3) a physician-based "Education and Activation" intervention. The primary outcome is global perceived recovery.

The results of this study will provide evidence regarding the effectiveness of three commonly used management strategies for whiplash injuries in Ontario. The results will help guide the development of effective and cost-effective programs of care and inform insurance and government policy on the rehabilitation of whiplash injuries.

Dr. Simon Dagenais DC, PhD
University of Ottawa

Dr. Dagenais is an Assistant Professor at the University of Ottawa, in the Department of Orthopedic Surgery in the Faculty of Medicine and a Clinical Investigator in the Clinical Epidemiology Program at the Ottawa Health Research Institute.

At the University of Ottawa, he advises surgeons on clinical research methodology and teaches medical students about evidence-based medicine. Simon is a member of the North American Spine Society, Associate Editor for The Spine Journal, and currently co-editing a supplement of TSJ with Scott Haldeman on the management of chronic low back pain without surgery. Simon is a peer reviewer for several scientific journals including TSJ, JMPT, JCCA, and CMAJ. He co-founded the CAM Research Institute in Irvine, California, a non-profit organization devoted to conducting research into promising complementary therapies, including prolotherapy for chronic low back pain. Simon obtained a Doctor of Philosophy in Environmental Health, Science, and Policy, specializing in Epidemiology and Public Health, at the University of California, Irvine.

Dr. Dagenais has an international reputation and is extensively published in the scientific literature (see Recent Publications). He recently presented at the Interdisciplinary World Congress on Low Back & Pelvic Pain in Barcelona, the Annual prolotherapy research forum at the University of Wisconsin School of Medicine and Public Health, the International Society for the Study of the Lumbar Spine in Hong Kong, the Canadian Spine Society, the Canadian Orthopedic Association, the Spine Care Revolution Conference, and the H.K. Uhthoff Research Day, Division of Orthopaedic Surgery at the University of Ottawa.

Currently he has four operating grants in place:

"Health economics evaluation of interventions for chronic low back pain". **Dagenais S**. National Chiropractic Mutual Insurance Company 2007 **US $36,000**.

"Evidence extraction and rating related to clinical practice guidelines on chiropractic management of headache in adults". **Dagenais S**, Aker P. Canadian Chiropractic Association 2007 **C$ 45,000**.

"Assessment of extracellular matrix gene expression in bovine disc nucleus pulposus cells exposed to disc restorative solution (DRS)". Erwin M, Eek B, **Dagenais S.** Skoll Foundation. 2007 **C$83,000**.

"Systematic review of risks for developing low back pain in workers". Wai E, Dagenais S, Bishop P, Kwon B. WorkSafe BC. 2007 **C$89,100**.

Dr. David Cassidy DC, PhD, Dr.Med.Sc.
University of Toronto

Dr. Cassidy has clearly distinguished himself as an exemplar and holds two doctorates. At the end of the 3rd quarter he had 21 papers submitted, in press or published in 2007.

He is the Director of the Centre for Research Expertise in Improved Disability Outcomes (CREIDO) at the Toronto Western Hospital which is part of the University Health Network. He is a Professor of Epidemiology in the Departments of Public Health Sciences, and also Health Policy, Management and Evaluation in the Faculty of Medicine at the University of Toronto. He supervisors many masters and PhD students at several universities. He is a Senior Scientist in the Division of Outcomes and Health Care at the Toronto Western Research Institute. He is Research Director for Rehabilitation Solutions at the University Health Network.

In 2007 he made no less than ten presentations internationally, including the Palma International Forum IX Primary Care Research on Low Back Pain in Spain, the Xth European Congress of Psychology in the Czech Republic, the 21st Annual Meeting of the Consortium of Multiple Sclerosis Centres in Washington, DC, the World Federation of Chiropractic 9th Biennial Congress in Portugal.

He is reviewer for countless Journals including Advance in Pain Management, Clinical Orthopedics and Related Research, BMC Public Health, Journal of Clinical Epidemiology, Journal of Rheumatology, SPINE and The Spine Journal.

He sits on the Editorial Board of BMC Chiropractic & Osteopathy (Journal), BMC Public Health, Clinical Chiropractic, Journal of Manipulative and Physiological Therapeutics, Journal of the Canadian Chiropractic Association, The Spine Journal, and SPINE.

In 2007 alone, Dr. Cassidy held 8 operating grants as the PI or co-PI;

Côté P (PI), **Cassidy JD (co-PI)**, Carette S (co-PI), Boyle E, van Tulder M, Ammendolia C, Frank J. *The University Health Network Whiplash Intervention Trial: A Randomized Controlled Trial of the Effectiveness and Cost-effectiveness of AVIVA's Premiere Health Care Program in Patients with Whiplash-associated Disorders*. Aviva Canada Inc. January 2007-February 2011. **$2,017,320**

Van der Velde G (PI), **Cassidy JD (Co-PI)**, Tompa E, Boyle E, Hogg-Johnson S, Schofield M, Boddener S. *Economic Perspectives on Workplace in Return to Work (RTW) Programs*. Workplace Safety and Insurance Board (WSIB) Bridging the Gap. January 2007-December 2007. **$29,914.**

Boyle E (PI), Steenstra IA, Hayden J, **Cassidy JD**, Wells R, Wyeld S. What Workplace Characteristics Have an Impact on an Injured Worker's Return to Work? A Qualitative Study. Workplace Safety and Insurance Board (WSIB) Bridging the Gap. January 2007-December 2007. **$29,966.**

Cassidy JD (PI), Jacobs CL. *Perceptions of Musculoskeletal Injury in Professional Dancers: an International Comparison* Dickson Memorial Foundation to University Health Network Artists' Health Centre Research Fund. August 2006-present. **$13,000**

Cassidy JD (PI), Côté P (co-PI), Carette S (co-PI). Centre for Research Expertise in Improved Disability Outcomes (CREIDO). Ontario Workplace Safety and Insurance Board (WSIB) Centre for Research Expertise Infrastructure Grant, July 2006-June 2011. $2,000,000 and with matching institutional funds **$3,750,000**.

Cassidy JD (PI), Côté P, Hogg-Johnson S, Bondy S, Silver F. *An epidemiologic assessment of the risk of stroke from chiropractic care*. Ontario Ministry of Health and Long-Term Care, June 2005 – May 2007. **$359,194**.

Soklaridis S (PI), **Cassidy JD**. *A Qualitative Research Project Exploring How Integrative Medicine Exists in an Occupational Health Clinic within a Hospital Setting: The Artists' Health Centre Finds a Home at the Toronto Western Hospital*. University Health Network, Artists' Health Centre Research Fund. May 2006-present. **$25,310.46**

Cassidy JD (PI). *Bone and Joint Decade 2000-2010 Task Force on Neck Pain and Its Associated Disorders*. National Chiropractic Mutual Insurance Company, Canadian Chiropractic Protective Association, Jalan Pacific Inc., and Länsförsäkringar, Insurance Bureau of Canada, Sweden. 2000-2007. **$3,000,000**.

CIHR Award Recipients

Dr. Gabrielle van der Velde DC, PhD(c)
University of Toronto

Dr. van der Velde has won two CIHR Awards.

The first is a 3 year CIHR Fellowship in the amount of $165,000 and will undertake the project "Cost-effectiveness Analysis of a Return-to-work Model of Care for Occupational Musculoskeletal Injuries" at the Toronto Western Research Institute. Her supervisor is Dr. Ahmed Bayoumi. This award had only a 13% success rate.

The second CIHR Award is the Bisby Fellowship in the amount of $15,000 which is offered to the highest ranking candidates in each of the Fellowship committees in each CIHR Fellowship competition. The intent of this award is to enable recipients to assert themselves as thought leaders on the national and international research stage through engagement in national or international conferences, workshops or meetings related to the award recipient's research.

Dr. van der Velde is a PhD candidate in the Clinical Epidemiology and Health Research Program at the University of Toronto. Her PhD supervisors are Dr. Murray Krahn and Dr. Sheilah Hogg-Johnston. Her research interests include cost-effectiveness analysis, decision analysis, economic and decision-analytic modeling, economic measures of health-related quality of life, systematic review methods. In addition, she holds two positions, Scientist in the Musculoskeletal Health and Arthritis Programme at Toronto Western Hospital, and Scientific Associate IV at the Toronto Western Research Institute. A recent publication appeared in Spine (see Recent Publications).

Dr. Karine Boily DC,MBA, PhD(c)
University of British Columbia

Dr. Boily has won a CIHR Fellowship.

Dr. Boily holds an MBA from Laval University which specialized in the management of occupational health and safety. She is currently a PhD candidate in epidemiology at the University of British Columbia under the supervision of Dr. Robert Sparks (School of Human Kinetics, Faculty of Education) and Dr Chris Lovato (Depart-

ment of Health Care and Epidemiology, Faculty of Medicine). Her PhD thesis focuses on the impact of social context on health and geographic health disparities in Canada, with a particular interest in youth tobacco use prevention.

Dr. Boily's CIHR Fellowship Award is part of the CIHR Strategic Training Program in Tobacco Research (CIHR STPTR). The distinctive focus of this program is on transdisciplinary training, provided by outstanding mentors who span a broad range of disciplines and departments at three universities: University of British Columbia, University of Toronto, and the University of Waterloo (Center for Behavioural Research and Program Evaluation) in order to equip the next generation of scientific leaders with the knowledge, skills and experiences that will have a positive impact on the health.

Accolades

Dr. Carlo Ammendolia DC, PhD

Dr. Ammendolia has been *granted treating privileges at Mt. Sinai Hospital in Toronto* and named Director of the Spine Clinic. This is a very significant accomplishment. He is intending to undertake *clinical trials*.

Dr. Ammendolia currently holds five positions:

1. Clinical Epidemiologist, Rehabilitation Solutions, University Health Network, Toronto Western Hospital
2. Scientific Associate, Division of Health Care & Outcomes Research, Toronto Western Research Institute
3. Knowledge Transfer & Exchange Scientist, Centre for Research Expertise in Improved Disability Outcomes (CREIDO)
4. Assistant Professor, Department of Health Policy, Management and Evaluation, Faculty of Medicine, University of Toronto
5. Director, Mount Sinai Hospital Spine Clinic, Department of Medicine, Toronto.

He will be collaborating with researchers such as Dr. Claire Bombardier, a world class rheumatologist who is Head, Division of Clinical Decision-making & Health Care at the Toronto General Research Institute and a Canada Research Chair. Part of his anticipated research will include a spinal stenosis clinic in addition to other spinal disorders and adapting the Rheumatoid Arthritis touch screen data collection system used at Mt. Sinai. See his papers in the Recent Publications section. cammendo@uhnresearch.ca

Dr. Greg Kawchuk DC, PhD

Dr. Kawchuk is a Canada Research Chair in Spinal Function and an Assistant Professor in the Faculty of Rehabilitation Medicine at the University of Alberta. He undertakes his research in the "Common Spinal Disorders Laboratory". Dr. Kawchuk was elected as the Canadian representative for International Society for the Study of the Lumbar Spine (ISSLS). In addition, he has won the prestigious MacNab Larocca award for a second year in a row.

Dr. Martin Normand DC, PhD

Dr. Normand is the Directeur, Département de chiropratique, Université du Québec à Trois-Rivières. He recently was presented with the CCA Award of Merit 2007 from the Canadian Chiropractic Association for exceptional dedication to the profession. He is published extensively in 2007 (see Recent Publications).

University Appointments

Three chiropractic researchers have received faculty appointments at two universities in Ontario.

Dr. Carlo Ammendolia DC, PhD was appointed an Assistant Professor at the University of Toronto. His appointment is in the Department of Health Policy, Management and Evaluation in the Faculty of Medicine. cammendo@uhnresearch.ca

Dr. Jill Hayden DC, PhD was appointed an Assistant Professor at the University of Toronto. Her appointment is in the Department of Health Policy, Management and Evaluation in the Faculty of Medicine. jhayden@uhnresearch.ca

Dr. Jay Triano DC, PhD was appointed an Associate Professor at McMaster University. His appointment is in the School of Rehabilitation Science in the Faculty of Health Sciences. Dr. Triano is CMCC's Associate Dean of Research. jtriano@cmcc.ca

These are three very significant accomplishments and all three researchers are to be commended.

Two Researchers Returning to Canada

Dr. Bernadette Murphy DC, PhD

Dr. Murphy is a highly qualified researcher with an exemplary track record in both research and publication. For the last 18 years she has been in New Zealand at the University of Auckland and was Post-graduate and MSc-Exercise Rehabilitation Co-ordinator and Director of the Human Neurophysiology and Rehabilitation Laboratory in the Department of Sport and Exercise Science.

Her overall research interest is in the neuromuscular changes that accompany chronic musculoskeletal pain states. She is interested in how to best identify, measure and target these deficits with an aim to improving clinical practice and providing objective evidence of the efficacy of physical interventions such as exercise and spinal manipulation. She will continue her exciting research into neuroscience relevant to chiropractic at a new university in Oshawa called the University of Ontario Institute of Technology (UOIT) just outside of Toronto. She began in mid December as a tenured Associate Professor in the Faculty of Health Sciences. Canada is fortunate to have her.

Dr. Brian Budgell DC PhD

Dr. Budgell returned to Canada from Japan where he was an Associate Professor at the School of Health Sciences, Faculty of Medicine at Kyoto University in Kyoto, Japan. Dr. Budgell has taken up a two year appointment at the Université du Québec à Trois-Rivières. He will be working closely with Dr. Mathieu Piché DC, PhD (candidate), on their shared interest in autonomic and spinal cord function. Dr. Budgell is a highly qualified researcher and brings academic distinction to the profession. He began September 1, 2007 in the Département de chiropratique, UQTR.

His current projects include:

"A study of vertebral subluxation and the effects of spinal cord compression on somatic evoked autonomic reflexes". Australian Spinal Research Foundation Research Grant LG 2007-02. (26,752 AUD in 2008), with Dr. Philip Bolton, School of Biomedical Sciences, Faculty of Health, University of Newcastle, Australia.

"A Programme to Facilitate Clinical Implementation of Traditional Medicine" (164,000 USD over 3 years), with Dr. Weimin Li, Shanghai Research Center for Acupuncture and Meridians, Shanghai, China.

In 2007 he had 3 papers published (see Recent Publications). Canada is fortunate to have him back. He is a CMCC Class '86 grad. bs.budgell@gmail.com

Research Chair/Professorship Updates

Dr. Martin Descarreaux DC, PhD
Titulaire de la Chaire de Recherche en Chiropratique FRCQ - Système Platinum
Université du Québec at Trois-Rivières

Between April and July 2007, Dr. Descarreaux worked at the P3M laboratory – Centre National de Recherche Scientifique (CNRS) – laboratory in Marseille. In collaboration with Dr. Annie Schmied and Dr. Jean-Pierre Vedel, and using intramuscular motor unit recordings, he investigated the effect of force on the synchronization of motor units. He also studied motor unit synchronization and muscle fatigue in a deafferented patient and developed recurrence analysis for the exploration of motor unit synchronization and muscle fatigue in surface electromyographic (EMG) signals. FCER and NBCE provided a grant of $33,000 for a study entitled: Preventive care of chronic cervical pain and disabilities; comparison of spinal manipulative therapy and individualized home exercise programs.

In addition, Dr. Descarreaux is the principal investigator of the study, entitled "Preventive care of chronic cervical pain and disabilities: Comparison of spinal manipulative therapy and individualized home exercise programs." Co-investigators are Martin C Normand, Danik Lafond and Claude Dugas.

His research team has been awarded "Groupe de Recherche" status by the UQTR. This particular status ensures recurrent internal funding (17000 to 25000$ per year) and reduced teaching load for the group. With new equipment and operating grants, the biomechanics laboratory is now equipped with two Optotrak Certus Motion Capture towers, a new force plate (the second), an 8-channel surface EMG system (8 more channels to be added by December 2007) and a "xSens MTx" three degrees of freedom orientation tracker.

The research program is now directed towards the effect of trunk muscle fatigue on neuromuscular control of the lumbar spine. The objective of a first investigation (Descarreaux et al., in revision), completed in 2006, was to quantify the influence of lumbar erector spinae (ES) muscle fatigue on myoelectric silence observed during the lumbar flexion-relaxation phenomenon (FRP). The second study, based on the same experimental paradigm and completed last summer, tested for the effect of hip extensor muscle fatigue on

ES myoelectric silence during the lumbar FRP. (See Recent Publications)

Dr. Mark Erwin DC, PhD
Canadian Chiropractic Research Foundation Scientist in Disc Biology; Assistant Professor, University of Toronto, Department of Surgery, Faculty of Medicine; Toronto Western Hospital

The "CCRF Scientist in Disc Biology" position is now firmly entrenched at the University of Toronto in the Faculty of Medicine. The CCRF/OCA have provided $150,000, the University Health Network has provided $150,000, Synthes Corporation has provided a $210,000 operating grant and the University of Toronto and Toronto Western Hospital (TWH) have provided in-kind contributions all of which were necessary to creating the most wonderful partnership imaginable.

Dr. Erwin is the first ever to report the nature of the soluble factors produced by notochord cells, specifically including CTGF. Currently he is focused upon genomic and proteomic analysis of notochordal cells under varying in vitro tissue culture conditions. He is also examining relevant characteristics of these cells by immunocytochemical and electron microscopic evaluation. Significant gene expression changes identified via microarray will be contrasted using real-time RT-PCR. In his laboratory, you would find state-of-art variable oxygen tension tissue culture equipment including two incubators and glove box - all of which have the ability to control oxygen tension to within .1% accuracy. In addition there is a Nikon inverted microscope imaging station that is both bright field and fluorescence capable and upgradeable to take confocal and bio-containment imaging.

He was recently awarded an AO "Young Investigator Grant" to investigate intervertebral disc-derived notochordal cells and apoptotic signalling. These experiments will evaluate the susceptibility/protection afforded to the disc nucleus by notochordal cells and/or the products that they produce to apoptosis induced by etoposide and other cytokines.

The long-term goal is to better understand the role of notochordal cells in the development and maintenance of the intervertebral disc nucleus and to apply lessons learned in future, novel molecular treatments for degenerative disc disease (DDD).

Dr. Erwin made three very significant presentations in 2007. He was the Keynote Speaker at the AO-ASIS Annual Fellowship Forum on "Degenerative Disc Disease: Is the bench moving closer to the bedside?" He addressed the University Health Network/Toronto Western Hospital, MHA Program, Osteoarthritis Initiative on "Regenerative Medicine and OA". He was the speaker at the university-wide orthopaedic rounds on the topic "Regenerating Degeneration : Does the notochord hold the secret to restoration of the intervertebral disc? This last event was an accredited group learning activity as defined by the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada.

In 2007 Dr. Erwin held two operating grants:

1. AO-ASIF

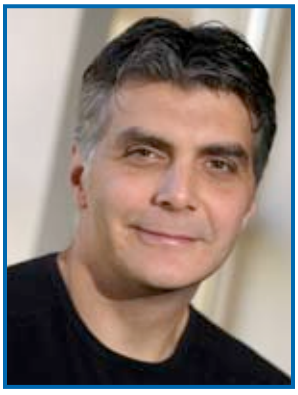
"Investigation of Molecular Signaling and Susceptibility to Apoptosis in Canine Intervertebral Disc Notochordal Cells" **W. Mark Erwin DC PhD (PI)**, Collaborators: Robert Inman MD, FRCP(C), Michael Fehlings MD, PhD, FRCS(C), PhD **($30,000)**

2. Synthes Corporation

"Notochordal and Mesenchymal Stem Cell-based restorative strategies for the treatment of Degenerative Disc Disease" **W. Mark Erwin DC, PhD (PI)** Collaborators: Robert Inman MD, FRCP, Michael Fehlings MD, PhD, FRCS **($210,000)**.

Dr. Erwin is collaborating with the Australian Proteomics Analysis Facility and Dr. Keith Ashman as well as Dr. Andrew Leask at the University of Western Ontario concerning hypoxic studies of fibroblasts and cell-lines and also molecular biological approaches to promoter/deletion construct analysis of notochordal cell biology. He is also currently investigating the organizational capacities of notochordal and bone marrow-derived mesenchymal stem cells with a view to developing novel biological approaches to DDD.

Dr. Erwin wants to supervise chiropractors in masters and PhD programs and believes that more integration of the basic sciences into the clinical training as appropriate would be helpful in the education of trainees. Increasing the interaction between the basic science research world and the clinical training programme would be enhance the education of the next generation of clinicians and clinician scientists.



Dr. Greg Kawchuk DC, PhD
Canada Research Chair in Spinal Function Common Spinal Disorders Laboratory Assistant Professor, Faculty of Rehabilitation Medicine University of Alberta

Dr. Kawchuk is the Canada Research Chair in Spinal Function. As an assistant professor in the Faculty of Rehabilitation Medicine at the University of Alberta, he is a member of the Common Spinal Disorders Laboratory and the Spinegineering Group.

Dr. Kawchuk's work is focused on the development of techniques to quantify spinal motion and the use of these techniques to improve the prevention, diagnosis and treatment of back

pain. To date, he and his students have envisioned, evolved and tested a series of technologies to better measure the function, and dysfunction, of the spine. These technologies range from mimicking methods used by clinicians (stiffness measurement) to ones that use standard imaging modalities (ultrasound, MRI) in novel ways to identify previously undetected spinal pathology.

In addition to the support of regional agencies and organizations, Dr. Kawchuk's work has been supported by several competitive funding agencies such as CIHR, NSERC, NIH and the Whitaker Foundation with over $3 million dollars. His off-campus collaborations include research groups in Sweden, Hong Kong, Australia and Vancouver. He is presently on the editorial boards of The Spine Journal, Journal of Manipulative and Physiologic Therapeutics and the Journal of the Canadian Chiropractic Association. In 2006 and 2007, he and his collaborators from Hong Kong were awarded the McNab Larocca Fellowship from the International Society for the Study of the Lumbar Spine.

Currently he is working on the following research projects:

1. the effect of cSMT on pre-existing vertebral artery injuries,
2. the changes in spinal stiffness following a) manipulation, b) core stability exercises, c) spinal fusions
3. the imaging of annular tears in intervertebral discs
4. the line of drive and it's impact on forces developed during SMT
5. new non-invasive technologies to assess spinal function
6. the characterization of biomechanical and neurological changes in the spine following SMT in a cat model.

In addition, the following projects are under development:

1. the development of a province wide surveillance system for adverse events related to SMT
2. the monitoring of bone-prosthesis loads in hip/spine implants
3. the robotic training of sitting in paraplegics.

Dr. Jean-Sébastien Blouin DC, PhD
CCRF/CIHR Chiropractic Research Chair
CCRF Professorship in Spine Biomechanics and Human Neurophysiology
School of Human Kinetics
University of British Columbia

Dr. Blouin holds Canada's 1st university-based CCRF Professorship (jsblouin@yahoo.com). This outstanding scholar is funded by the CCRF, UBC, the British Columbia Chiropractic Association (BCCA), the British Columbia College of Chiropractors (BCCC), CIHR, and CFI. In addition, Dr. Blouin recently became the 4th CIHR/CCRF Chiropractic Research Chair.

In 2007 he had 8 papers published, in press or submitted in very prestigious journals (see Recent Publications). In the past year, Dr. Blouin has been awarded grants from three different agencies: CIHR-CCRF, CFI-BCKDF Leaders opportunity fund and NSERC. The CIHR-CCRF salary award establishes a chiropractic research award at the University of British Columbia. It will allow Dr. Blouin to dedicate most of his time to research. The CFI-BCKDF and NSERC awards are equipment grants, necessary to equip his laboratory with state-of-the-art tools to perform innovative research. The laboratory is now fully operational and performs sensorimotor physiology research in humans.

The research performed in Dr. Blouin's laboratory lead to the publication of four peer-reviewed manuscripts in the Journal of Physiology, Journal of Neurophysiology, Journal of Biomechanical Engineering and Journal of Applied Physiology. His research seeks to characterize the neural signals controlling the neck and lower limb muscles. One of his publications showed that deep and superficial neck muscles share common neural signals when generating isometric neck contractions. In December Dr. Blouin gave a presentation at the Sobell Department of Motor Neuroscience and Movement Disorders, University College London.

Recently, he started collaborating with Dr. Gregory Kawchuk (University of Alberta) and together they are looking at the lumbar muscles responses to a variety of movements imposed by a robot. In addition, he collaborates with Dr. Richard Fitzpatrick (UNSW, Australia) and Dr. Brian Day (UCL, England), both of whom are world experts in motor physiology. Dr. Fitzpatrick will send one of his graduate student (Billy Luu) to Dr. Blouin's laboratory to elucidate the neural control of voluntary and balance actions.

In the School of Human Kinetics, Dr. Blouin works closely with Drs Inglis, Chua, Siegmund and Carpenter on a variety of projects such as attempting to characterize the various

descending and reflex signals contributing to motoneuron firing, performing sympathetic recordings of the tibial nerve in awake humans, and working on the neural control of neck muscles as well as mechanics of whiplash injuries.

Dr. Blouin is a reviewer for many journals such as Brain, Brain Research, Chaos, Experimental Brain Research, Journal of Applied Physiology, Journal of Applied Biomechanics, Journal of the Canadian Chiropractic Association, Journal of Neurophysiology, Journal of Physiology, NeuroImage, Neuroscience Letters, and Neuropsychologia.

Equipment grants currently held:

CFI-BCKDF Leaders opportunity fund Title: *Neurophysiology of the cervical spine: application of EEG and robotics to injury prevention, assessment and rehabilitation* (**CFI: $119806, BCKDF: $119805**). Role: Principal investigator This equipment grant allowed the purchase of a 64channel EEG system with active shielding electrodes as well as a unique motor to control movements of the head and trunk.

NSERC RTI Title: *Ultrasound monitoring of muscle* Role: Co-Investigator (PI: J. Timothy Inglis, University of British Columbia) This equipment grant allowed the purchase of a portable ultrasound system for inserting wire electrodes in neck and lower limb muscles.

Start-up grant Faculty of Education and School of Human Kinetics (**$100,000**). This grant allowed the purchase of basic tools such as a 16-channel EMG, 40-channel DAQ boards, computers, constant current stimulator, motorized bed, software, and 6 DOF Inertial Motion Unit sensors.

Dr. Jill Hayden DC, PhD
CCRF/CIHR Chiropractic Research Chair
University of Toronto
Toronto Western Research Institute, University Health Network

In April, 2007 Jill successfully defended her PhD in Clinical Epidemiology (Dept. of HPME), University of Toronto on the topic of 'Methodological issues in systematic reviews of prognosis and prognostic factors: Low back pain'. She was recently appointed as Assistant Professor in the Dept. of HPME, University of Toronto. This year she has published 7 peer-reviewed articles on the topics of low back pain prognosis, and methods related to the conduct of prognosis studies and systematic reviews (see Recent Publications). She continues to be very involved in the Cochrane Collaboration, as a member of the Advisory Board of the Back Review Group and as co-convenor of a new proposed Prognosis Review Methods Group. In October she led workshops on the methods of prognosis studies/reviews at the International Primary Care LBP Forum, Mallorca, Spain and the Cochrane Colloquium, Sao Paolo, Brazil. In July, 2007 she started her Canadian Institutes of Health Research (CIHR) / Canadian Chiropractic Research Foundation (CCRF) New Investigator Award (2007-2012) which is funded by CCRF and CIHR with $525,000 to start .

She was involved in two successful grant applications in 2007: a CIHR team planning grant led by Dr. Joy MacDermid (McMaster University, Hamilton) and Dr. Dorcas Beaton (St. Michael's Hospital, Toronto), and a WSIB grant investigating the impact of workplace characteristics on return-to-work led by Dr. Eleanor Boyle (CREIDO, UHN, Toronto).

Dr. Hayden made 6 presentations in 2007 which included "Systematic Reviews of Prognosis: Exploration of methods in the field of low back pain and guidance for future reviews" at the Institute for Work & Health and the Cochrane Colloquium in Brazil, "Evidence on the effectiveness of exercise therapy for treating low back pain" at the Toronto Rehabilitation Institute, and "Identifying Factors Related to Disability and Return to Work in Low Back Pain" at the WorkSafe BC Annual Health Care Provider Conference in British Columbia.

Awards currently held include:

Canadian Institutes of Health Research (CIHR) / Canadian Chiropractic Research Foundation (CCRF) New Investigator Award, 2007-2012 (**$525,000**).

MacDermid JC, Beaton DE, Baptiste SE, Buckley DN, Hayden JA, Hogg-Johnson S, Law MC, McLean L, Shaw L, Williams RM. TEAM WORK: Targeted Evaluation and Management of Work, Orthopedics, Rehabilitation & Knowledge-translation. CIHR Team Planning & Dev. Grants-Developing New Res. Teams to Enhance Quality of Life Competition. (**$99,955**)

Boyle E, Steenstra IA, Hayden JA, Cassidy JD, Wells R and Wyeld S. "What Workplace Characteristics Have an Impact on an Injured Worker's Return to Work? A Qualitative Study". Workplace Safety and Insurance Board (WSIB) Bridging the Gap (**$29,966.00**)

Issues of Note

Dr. Michael Lalonde DC

Recently a new medical school opened in Ontario, the Northern Ontario Medical School. The NOMS 3rd year medical students are going to be spending time with Dr Michael Lalonde DC in his North Bay clinic as part of their program.

Interdisciplinary Bridges

Dr. John Dufton DC, MSc, MD

After graduating from CMCC, Dr. Dufton joined Dr. Jeff Quon's practice for a few years while completing a Masters in Epidemiology. He recently completed medical school, and currently is doing his residency in radiology at Queens' University. 6jad5@queensu.ca

Dr. Kelly Donkers Ainsworth DC, BSc, MD

Dr. Ainsworth has recently completed medical school (Class of 2007) at McMaster University in Hamilton, Ontario and is now a Resident Radiologist at McMaster University, Faculty of Health Sciences, Department of Radiology, Room 2S, Radiology, 1200 Main Street West, Hamilton, Ontario, L9N 3Z5. kelly.ainsworth@learnlink.mcmaster.ca

Masters Candidates

Dr. Jason Gray BHK, DC

Dr. Gray is from Nova Scotia and he is now pursuing his masters degree at Dalhousie University in the masters kinesiology program which is a part of the School of Health and Human Performance. His supervisor is Dr. Lori Livingston.

Dr. Ron Norman DC

Dr. Norman is a 2003 graduate of AECC and now a masters student in the Clinical Health Sciences- Clinical Epidemiology Specialization program at McMaster University, Faculty of Health Sciences in Hamilton, Ontario. He intends to transfer to the PhD program after one year and conduct a co-supervised RCT at the Hamilton General Hospital Multidisciplinary clinic.

His co-supervisors are Dr Norm Buckley, MD, FRCPC, Associate professor, Acting Chair, Department of Anesthesia, McMaster University and Director of the Hamilton General Hospital Pain Clinic and Dr. Mohit Bhandari MD, FRCPS, MSc, Assistant Professor, Orthopedic Surgery (Canada Research Chair in Musculoskeletal Trauma). Dr. Norman's research interests include the efficacy of non-surgical management (ie. manipulation) in musculoskeletal disorders (chronic low back pain and primary and secondary sciatica), orthopaedic wait time reduction and generally evidence-based manual musculoskeletal health care. normanrg@mcmaster.ca

Dr. Debbie Kopansky-Giles DC

Dr. Kopansky-Giles is pursuing her masters degree at the University of Bournemouth. Her thesis supervisors are Dr. J. Bolton, Dr. J. Triano, and Dr. H. Till. Currently, Dr. Kopansky-Giles is on staff at St. Michael's Hospital in Toronto, in the Chiropractic Program in the Department of Family and Community Medicine and teaches in the Faculty of Medicine at the University of Toronto.

Dr. Cesar A. Hincapié, BPHE, DC

Dr. Hincapie is a masters candidate in the Master of Health Science (Community Health & Epidemiology) in the Department of Public Health Sciences, Faculty of Medicine, University of Toronto. His supervisor is Dr. J. David Cassidy, DC, PhD, DrMedSc. He has already received two awards - Institute for Work & Health Graduate Fellowship Award, Department of Public Health Sciences, Faculty of Medicine, University of Toronto, 2007 – and – the Center of Research Expertise in Improved Disability Outcomes (CREIDO) Graduate Student Practicum Award, Rehabilitation Solutions, University Health Network, 2007.

His research interests include MSK and injury epidemiology, understanding the causes and contributing factors of intense and disabling MSK pain and exploring how information and communication technologies (i.e., eHealth) might be used in the prevention and treatment of MSK pain and disability. Dr. Hincapie already has six papers in submission (see Recent Publications). chincapi@uhnresearch.ca

Dr. Geoff Gelley DC

Dr. Gelley is pursuing his masters degree in Medical Rehabilitation at the University of Manitoba. His supervisors are Dr. Brian MacNeil, PhD and Dr. Dean Kriellaars, PhD. Dr. Gelley's research interests include quantifying spinal manipulation with accelerometry as well as the neurophysiologic effects of SMT. argg@mts.net

Dr. Paul Nolet DC

Dr. Nolet is earning his Master of Public Health (MPH) degree in the Faculty of Professional Schools at Lakehead University in Thunder Bay, Ontario. His supervisors are Dr. Pierre Cote DC, PhD and Dr. Darlene Steven RN, PhD and his research interests include epidemiology, neck pain and whiplash. He was recently awarded an FCER Fellowship. nolet@sentex.net

Dr. Maja Stupar, BSc, DC

Dr. Stupar is a Masters Candidate in Clinical Epidemiology in the Department of Health Policy, Management and Evaluation in the Faculty of Medicine at the University of

Toronto and is funded with a University of Toronto Fellowship 2006-07. Her supervisor is Dr. Pierre Côté. Her research interests are focused on whiplash injuries, neck pain, back pain, osteoarthritis, and measurement. In 2007/2008 she already has three publications (see Recent Publications).

Dr. Stupar was a presenter at the World Congress on Neck Pain in Los Angeles on "Prevalence and Factors Associated with Neck Pain in Office Workers" and at the OARSI World Congress on Osteoarthritis in Fort Lauderdale on "The relationship between back problems and a disease-specific measure of pain and functional limitations in individuals with osteoarthritis".

Dr. André Bussières DC, BSc

Dr. Bussières is a Professor and the Directeur du comité de programme, Département chiropratique at Université du Québec à Trois-Rivières. His research interests include Clinical Practice Guidelines development and knowledge transfer, more specifically comparing barriers and facilitators to guideline adherence across the health disciplines. He is pursuing his Masters degree in the Kinesiology program at UQTR and his supervisor is Dr. Louis Laurencelle, PhD. Dr. Bussières has 7 publications in 2007 (see Recent Publications). In 2007, he made three presentations at the Suisse Annual Continuing Education Congress in Switzerland titled "Diagnostic Imaging Practice Guidelines for Musculoskeletal Complaints. An Evidence-based Approach", ' Indications for Diagnostic Imaging in Adults – Spine Disorders"and "Transfer of guidelines into the daily practice".

In 2007, Dr. Bussières held four grants :

Bussières A, Martel J, Grenier JM. Educational intervention strategy for diagnostic imaging guidelines implementation in the undergraduate chiropractic program. Fonds d'innovation pédagogique de l'UQTR. (**5 928 48 $**)

Gareau R, Blais MC, **Bussières A**, Dugas C, Lafrance J, Martel JM, Ménard C. Integrated Health Care Project at UQTR. FODAR (**93 000 $**)

Gareau R, Blais MC, **Bussières A**, Dugas C, Lafrance J, Martel JM. Integrated Health Care Project at UQTR. Bureau du Vice Recteur aux études de cycle supérieur et de la recherche, UQTR. (**13 000 $**)

Dr. Heather Shearer DC

Dr. Shearer is a Masters candidate in the Institute of Medical Science at the Faculty of Medicine at the University of Toronto. Her supervisors are Dr. P. Côté DC, PhD and Dr. J. Frank PhD and she is funded with a department stipend. Here research interests include the development and testing of clinical prediction rules (CPR) and her thesis involves developing and testing a CPR for sustained return-to-work following an episode of work-related back pain.

In 2007 she received the Dr. Kirkaldy-Willis Memorial Award and a CREIDO (centre for research expertise in disability outcomes) pilot project grant and recently was accepted as a Fellow of the College of Chiropractic Sciences of Canada [FCCS(C)]. In addition to her MSc, Dr. Shearer also works as a Trial Coordinator for a randomized controlled trial at the University Health Network. The trial is being conducted to determine the best method to treat whiplash injuries. Dr. Shearer has four publications in press (see Recent Publications).

Dr Marc-André Blanchette DC

Dr. Blanchette is a masters candidate and will shortly defend his thesis for a masters in science of physical activity at UQTR. He is supervised by Dr. Martin C Normand DC, PhD DC and funded in part by the Fondation chiropratique du Québec with $3000 a year. Dr. Blanchette just completed a project on the treatment of tennis elbow by augmented soft tissue mobilisation.

Dr. Kim Lalanne DC

Dr. Lalanne is a second year masters student in kinesiology at the Université du Québec à Trois-Rivières funded by la Fondation Chiropratique du Québec (3000$) and is supervised by Dr. Martin Descarreaux DC, PhD. Dr. Lalanne's thesis is "*The effects of spinal manipulation on the lumbar flexion-relaxation phenomenon*". In 2006, Dr. Lalanne received the most promising student award by the Department of Chiropractic and also published a paper. *Descarreaux M, Dugas C, Lalanne K, Vincelette M, Normand MC. Learning spinal manipulation: the importance of augmented feedback relating to various kinetic parameters. The Spine Journal 2006 Mar-Apr; 6(2):138-45.*

Dr. Johanne Martel DC

Dr. Martel is a professor at UQTR and the previous clinic director (January 2003 to May 2007). She is currently doing a Master's degree in kinesiology. Her supervisor is Dr Claude Dugas, PhD and her research project is a group project. The PI is Dr. Martin Descarreaux, DC, PhD and the title is "Chiropractic maintenance care for chronic mechanical cervical pain: a RCT comparing SMT alone, SMT with a therapeutic home exercise program and a control group". The research is funded by FCER with $30000US. Dr. Martel's research interests include research in medical education.

New Masters – Congratulations!

Dr. Kent Stuber DC, MSc

The University of Sheffield School of Health and Related Research has awarded Dr. Stuber his Masters degree in Health and Social Care Research with distinction. His dissertation topic was chiropractic care for pregnancy-related low back pain. His supervisor was Dr. Georgina Jones.

Dr. Stuber's research interests include the validity and reliability of orthopedic tests, chiropractic treatment effectiveness and safety during pregnancy, online surveys of chiropractors, systematic reviews, and the exploration of qualitative and novel research methods in chiropractic research. He is currently Project Leader for an online job analysis of the profession for the CCEB with a pilot study anticipated to launch in late 2007/early 2008. See Recent Publications.

Dr. Stephen Burnie DC, MSc

Dr. Burnie has been awarded his Masters in Rehabilitation Sciences from McMaster University. His supervisor was Anita Gross, BScPT, MSc and the Committee was Dr. Lynda Woodhouse BScPT, PhD, Dr. Charlie Goldsmith PhD and Dr.Ted Haines MD. Dr. Burnie was funded as a CIHR Strategic Training Fellow in Rehabilitation Research and an FCER Fellow. (see Recent Publications)

His research interests include evaluating the effectiveness of neck adjustments for mechanical neck disorders and dose related issues such as evaluating the ideal number, frequency, and duration of chiropractic care for maximal patient benefit. In addition, he is also interested in investigating whether other treatment factors, particularly the use of mobilization and exercise, augment the effectiveness of neck adjustments. Currently, Dr. Burnie remains involved with two research teams at McMaster, the Head and Neck, Shoulder and Arms (HaNSA) research group and the Cervical Overview Group, which is charged with compiling Cochrane Reviews for conservative treatment of neck disorders.

Dr. Melanie Lopes DC, MSc

Dr. Lopes has been awarded her Masters Degree in Kinesiology, from the Kinesiology and Health Sciences Department at York University in Toronto. Her supervisor was Dr. Peter J Keir in the Kinesiology Department at McMaster University and she was supported by an NSERC Discovery Grant. Her thesis was "Ultrasound measures of the carpal tunnel, tendon and nerve excursion" and she intends on submitting this to Clinical Biomechanics. Currently, Dr. Lopes is in the middle of the sports chiropractic residency program, and would like to pursue more sports-related research, particularly of the lower extremity.

New PhD's – Congratulations!

Dr. Jeff Quon DC, PhD

Dr. Quon has successfully defended his thesis at UBC and joins the ranks now as Dr. Jeff Quon DC, PhD epidemiologist. At present, he is working on getting the four studies from his thesis ready for publication. quon@interchange.ubc.ca

Dr. Shari Wynd DC, PhD

Dr. Wynd recently defended her thesis at the University of Calgary. She is currently an Assistant Professor at the Southern California University of Health Sciences, Los Angeles Chiropractic College. shariwynd@scuhs.edu

PhD's coming down the pipe!

Dr. Karine Boily DC, MBA, PhD (c)

(see CHIR Awards)

Dr. Jason Busse DC, PhD (c)

Dr. Busse is planning to defend his PhD thesis in January 2008. He is in the Health Research Methodology program, in the Department of Clinical Epidemiology & Biostatistics at McMaster University. His supervisor is Gordon H. Guyatt (MD, FRCPC, MSc). He is funded by a CIHR Training Fellowship ($45,000 per year plus $5000 for discretionary research funds). In 2007 Dr. Busse has 16 papers either submitted or accepted (see Recent Publications) and in 2007 was a co-author in 4 book chapters which are in press.

He is a co-investigator in 3 projects and the PI in a systematic review:

1. A Prospective Multicentre Randomized Controlled Trial to 2007-2011 Evaluate Therapeutic Ultrasound in the Treatment of Tibial Fractures (TRUST). Principal Investigator: GH Guyatt. Co-investigators: JW Busse, M Bhandari, EH Schemitsch, D Sanders. Agency: Canadian Institutes of Health Research (CIHR) & Smith and Nephew Funds: **$2,025,469** (CIHR: $449,102; Smith & Nephew: $ 1,576,367)
2. Complementary and Alternative Medicine in Back Pain Utilization: 2008-2009 A Systematic Review. Principal Investigator: P Raina Co-investigators: PL Santaguida, A Gross, J Gagnier, M Bhandari, JW Busse Agency: Agency for Health Research and Quality and partnered with the National Center for Complementary and Alternative Medicine (NCCAM/NIH) Funds: **$198,000**.
3. Evaluating the need for and potential design of a no-fault 2008-2009 compensation program for immunization related injuries.Principal Investigators:

K Wilson and JE Keelan. Co-investigators: A Attaran, JW Busse, MD Krahn, AJ McGreer, RE Upshur. Agency: Canadian Institutes of Health Research (CIHR) Funds: **$145,274**.

4. Exploring Predictors of Prolonged Recovery Following Acceptance 2008 for Disability Benefits: A Systematic Review. Principal Investigators: JW Busse and GH Guyatt . Agency: Great West Life Assurance Company Funds: **$30,000**

Dr. Gabrielle van der Velde DC, PhD (c)

(see CIHR Awards)

Dr. John Srbely DC, PhD (c)

Dr. Srbely is at the University of Guelph in the Department of Human Biology and Nutritional Sciences in the Neurophysiology and Biophysics program and is supervised by Dr Jim Dickey PhD and funded by NSERC. He plans to defend his thesis in the Spring of 2008.

Dr. Srbely's research interests embrace the study of pain mechanisms on a cellular/electrophysiologic level. He is investigating the neurophysiologic mechanisms of central sensitization and the impact of these mechanisms on the clinical presentation and pathophysiology of musculoskeletal pain. As there is presently no objective measure of sensitization, he is also working to develop methods of quantifying sensitization electrophysiologically, which may provide a valuable diagnostic tool in the early detection and management of musculoskeletal pain. He already has four papers in the works (see Recent Publications).

Dr. Steven Passmore DC, PhD (c)

Dr. Passmore is in the second year of a PhD program in the Department of Kinesiology at McMaster University specializing in human motor control and motor learning. His supervisor is Dr. Timothy D. Lee PhD and his research interests include utilization of motor control/learning tasks/paradigms as functional quantitative outcome measures of clinical intervention. Dr. Passmore was recently awarded an FCER Fellowship. See Recent Publications.

Dr. Mana Rezai DC, PhD(c)

Dr. Rezai is in the first year of a PhD in Epidemiology at the Department of Public Health Sciences in the Faculty of Medicine at the University of Toronto.Her supervisor is Dr. Pierre Côté DC, PhD and she is funded as a CREIDO student. Her research interests are focused on musculoskeletal disability and international perceptions of disability. Presently she is working on data collected from her MHSc project on disability conducted in Cambodia (January 2007-April 2007), a study on HRQoL and neck pain, and perceptions of disability and RTW.

Recent 2007 Papers In Press/ Published

Normand MC, Harrison DD, Descarreaux M, Harrison DE, Perron DL, Ferrantelli JR, Janik TJ. Evaluation of Standing Posture as Rotations and Translations in 3-D: Inter-examiner and Intra-examiner Reliability of the PosturePrint. Chiropr Osteopat. Sep 24;15(1):15.

Lafond D, Descarreaux M, Harrison DD, Normand MC, Harrison DE. Postural development in school children: a cross-sectional study. Chiropr Osteopat. 2007 Jan 4;15(1):1-7.

Boucher P, Descarreaux M, Normand MC. Postural control in people with osteoarthritis of the cervical spine. J Manip Physiol Thera (In-press).

Descarreaux M, Mayrand N, Raymond J. Neuromuscular control of the head in an isometric force reproduction task: comparison of whiplash subjects and healthy controls. The Spine Journal (In-press).

Desmarais A, Descarreaux M, Diagnosis and management of functional femoral neuropathy: A case study. J Can Chiropr Assoc. (In-press).

Stuber K. Chiropractic research in the postmodern world: a discussion of the need to use a greater variety of research methods. J Chiropr Hum (accepted).

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Dagenais S, Mayer J, Wooley JR, Haldeman S. Evidence informed management of chronic low back pain with medicine assisted manipulation, Spine J;2008;8(1): (In press).

Mayer, J, Mooney, V, Dagenais S. Evidence informed management of chronic low back pain with lumbar extensor strengthening exercises, Spine J;2008;8(1): (In press).

Wai EK, Rodriguez S, Dagenais S, Hall H. Evidence informed management of chronic low back pain with physical activity, smoking cessation, and weight loss. Spine J;2008;8(1): (In press).

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Upcoming Events/Meetings

Cochrane Training Workshop

A Review Author Training Workshop is being hosted at the University of Calgary Cochrane Network Site on January 17-18, 2008. This free review author workshop is being offered at the Health Sciences Centre at the University of Calgary. For more information please visit the workshops and events page at www.ccnc.cochrane.org. To register please email Lisa McGovern at lmcgover@uottawa.ca

Research Symposium at CMCC

CMCC will hold its Research Symposium on Friday, February 1, 2008. Hear experts from Harvard, Mayo Clinic, University of Vermont, Toronto Western and CMCC. Discover the latest trends in integrative health care research. For further information: Jodi Spivak 416-482-2340/1-800-669-2959 ext. 200. jspivak@cmcc.ca.

Canadian Cochrane Network and Centre Symposium

The CCN/C will hold the 6th Canadian Cochrane Symposium, March 6-7, 2008 at the Sutton Place Hotel, in Edmonton. The theme is "New Horizons for Systematic Reviews in Health Care". For further information go to www.ccs2008.ca It is hosted by the University of Alberta Cochrane Site and the Cochrane Child Health Field.

Dr. Allan Gotlib is an Executive Committee member. Spend some time on their sites. www.ccnc.cochrane.org or www.thecochranelibrary.com

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