# RESEARCH BULLETIN23 December 2013







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## CCRF RESEARCH BULLETIN

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# III President's Message



Dear Colleagues,

I recently had the distinct pleasure of attending Queen's University in Kingston with Dr. Allan Gotlib to announce the new *"Canadian Chiropractic Research Foundation Professorship in Rehabilitation Therapy"*. This most recent Professorship is located in the Faculty of Health Sciences in the School of Rehabilitation Therapy, and is now occupied by Dr. Simon French BAppSc(Chiropractic), MPH, PhD. Dr. French hails from the University of Melbourne in Australia where he was a senior Research Fellow at the Centre for Health, Exercise and Sports Medicine. His research at Queen's University will be focused on knowledge translation in primary care with an emphasis on the management of musculoskeletal conditions.

One of the things that particularly struck me was the manner in which we were received at the University. Dr. Richard Reznick, Dean, Faculty of Health Sciences and Dr. Marcia Finlayson, the Vice-Dean, welcomed us as colleagues and equals and I felt that they were genuine in expressing their respect for Dr. French and our profession.

This level of credibility and acceptance has its roots in the Research Chair and Professorship programmes that have been in existence for the past several years through the CCRF. Our next announced Chiropractic Professorship will be at the Memorial University of Newfoundland, the "MUN CCRF Research Professorship" will be housed in the Faculty of Medicine. The position has been posted and the University is searching for a qualified (chiropractor) candidate in epidemiology and/or biomechanics.

At a recent meeting of the Board of the CCRF, a member from one of our smaller Provinces stated that "we all benefit from the work of our Researchers". This is a rather obvious but nevertheless accurate statement. If you familiarize yourself with the work our researchers are doing: Dr. Erwin-Disc Biology and Regeneration, Dr. Ammendolia-Spinal Stenosis, Dr. Blouin-Whiplash, Dr. Srbely-Spine Mechanics and Chronic Pain, Dr. Hayden-Musculoskeletal Health, specifically low back pain, Dr. Bruno- Motor control and rehabilitative exercise for patients with low back pain, to name a few, we understand that the collaboration and information flowing from these people affects us all. I am convinced that it is in part due to their efforts that we now have many Chiropractors working in multi-disciplinary clinics.

We will continue to move forward with relevant research, the results of which we can all use in our offices if we continue to support the CCRF by contributing at www.canadahelps.org.

Dr. Drew Potter, DC President, CCRF <u>drdrew@gto.net</u>

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## III Profiles



Dr. Jean-Philippe Pialasse, DC, MSc, PhD candidate Université Laval

**Dr. Jean-Philippe Pialasse** is in the last year of his PhD in kinesiology at Université Laval. He is supervised by Martin Simoneau PhD, and co-supervised by Martin Descarreaux DC, PhD at Université du Québec à Trois-Rivières (UQTR). His thesis focuses on the influence of vestibulomotor control on idiopathic scoliosis onset and progression. Hence, his research interests mainly are motor control, vestibular function and scoliosis. However, his skills also include project design, cell extraction, molecular

biology, several programming languages including electronics and microcontroller programming.

His PhD project received financial support from the *Fondation Cotrel de la Fondation de France*. As well, Jean-Philippe Pialasse has been awarded a 3 year fellowship by the *Fond de Recherche du Québec en Santé*, in order to pursue his PhD. He has also been supported by *Fondation de Recherche Chiropratique du Québec* (FRCQ) and European Chiropractic Union (ECU).

Jean-Philippe Pialasse's most recent publications are a book chapter on sensorimotor integration in idiopathic scoliosis and an article in Medical Hypothesis. In the last year he has received an award for best oral presentation (valued at 1000 \$) and has been granted the *Jean-Aimé-Simoneau award* (valued at 5000\$) for the top post-graduate student in the kinesiology department engaged in research related to muscle tissue structure and function.



Dr. Julie-Marthe Grenier, DC, DACBR, PhD candidate Université du Québec à Trois-Rivières

**Dr. Julie-Marthe Grenier** is an associate professor of radiology at the Université du Québec à Trois-Rivières since August 2006. She previously served as assistant professor of radiology and coordinator of clinical diagnostic imaging services at Palmer College of Chiropractic – Florida, where she was voted Faculty of the Year in 2005. She completed her Bachelor of Science degree and Doctorate of Chiropractic studies in 1999 at Cleveland Chiropractic College in Kansas City. She obtained her radiology

credentials (DACBR) in 2003 after a residency at Palmer College in Iowa. She always demonstrated an interest towards research, serving initially as a research assistant then research clinician and consulting radiologist throughout the years. Her research interests are focused on imaging and clinical education, especially using qualitative research methods. She has published several articles as well as several book chapters and presented the results of her research in a variety of venues. She is currently a PhD candidate at UQTR, under the supervision of Dr. Jean-Marie-Miron of the Education department and Dr. Liette St-Pierre of the Nursing department. The title of her thesis is: A description of the radiographic film interpretation experience in chiropractors of different expertise level. In addition to completing her research projects, she maintains an active film reading practice.



Dr. Maja Stupar, DC,

University of Toronto

PhD

**Dr. Maja Stupar** has successfully defended her Doctoral thesis in Clinical Epidemiology at the Institute of Health Policy, Management and Evaluation, University of Toronto. Her thesis, supervised by Dr. Pierre Côté, addresses measurement of outcomes in musculoskeletal injuries. Specifically, she is evaluating psychometric properties of an outcome measure developed for assessing whiplash-related disability. Dr. Stupar was a Canadian Institutes of Health Research

(CIHR) Vanier Canada Scholar. She also received the CIHR Michael Smith Foreign Study Supplement in 2010 and the 2011 CCA Young Investigator Award. Dr. Stupar is currently involved in the Minor Injury Guideline Development project as part of the Core Scientific Team.



**Dr. John Riva** has successfully completed his Master's degree in the Health Research Methodology program at McMaster University. In 2008, Dr. Riva was appointed as an Assistant Clinical Professor at McMaster University. He leads problem-based learning and musculoskeletal training sessions at the Michael G. DeGroote School of Medicine, has maintained a clinical practice for over 12 years, and is a clinical preceptor

Dr. John Riva, DC, MSc McMaster University

to students from McMaster University and the University of Toronto. His current research interests are related to integration of chiropractors into mainstream healthcare, predictors of prolonged disability and recovery, appropriateness of spinal imaging, transport truck driver health & safety, physical activity for diabetes, fibromyalgia management, and updating the Canadian clinical practice guideline for safe and effective use of opioids in the management of chronic pain. He has 18 peerreviewed publications.

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**Dr. Geoff Gelley**, DC, MSc, FRCCSS(C) has been recently accepted into the Applied Health Science PhD program for the January 2014 intake at the University of Manitoba. His co-advisors are Dr. Brian MacNeil, PhD and Dr. Steven Passmore, DC, PhD.

Dr. Geoff Gelley, DC, MSc, FRCCSS(C) University of Manitoba

Dr. Gelley graduated from the Canadian Memorial Chiropractic College in 1989, after which he completed his fellowship from the College of Chiropractic Sports Sciences

(FCCSS) in 2003. In 1993 he established the Gelley Chiropractic Clinic and is dedicated to providing a non-surgical management of the spine and other musculoskeletal conditions. Dr. Gelley's current research interests are directed at further quantifying the accelerations and forces of spinal manipulation and also determining the dose response of spinal manipulation. His PhD proposal will analyze the factors that predict acceleration and force magnitudes during spinal manipulation and will further compare the clinician input and tissue responses that occur during spinal manipulation.

## Canada's Next "Chiropractic Research Professorship"



Queen's University, one of Canada's leading universities with an international reputation for scholarship, social purpose, and spirit, has awarded the "Canadian Chiropractic Research Foundation Professorship in Rehabilitation Therapy" to Dr. Simon French BAppSc(Chiropractic), MPH, PhD.

A Recognition Event was held on September 12, 2013 by Queen's University in the School of Medicine Building.

This Research Professorship is funded with an initial investment in a partnership agreement between the CCRF and Queen's University and builds on CCRF's research capacity program which establishes Research Chairs and Professorships in universities across Canada.

The "Queen's University CCRF Research Professorship in Rehabilitation Therapy" will have its home in the Faculty of Health Sciences in the School of Rehabilitation Therapy.

Dr. Simon French comes to Queen's from the University of Melbourne in Australia where he was a Senior Research Fellow at the Centre for Health, Exercise and Sports Medicine, Department of Physiotherapy in the School of Health Sciences. His position was supported by an Australian National Health and Medical Research Council Primary Health Care Early Career Research Fellowship. He is also an Adjunct Senior Lecturer, Discipline of Chiropractic, School of Health Professions at Murdoch University.

Simon's research interests include knowledge translation research in primary care with a focus on the management of musculoskeletal conditions. He has conducted research in the area of low back pain, evidence-based practice and implementation research (health services research). He has also undertaken randomised trials and systematic reviews of interventions relevant to primary care settings.

Dr. French graduated from RMIT University as a chiropractor in 1993, received his Master of Public Health in 1999 from the Department of Epidemiology and Preventive Medicine, Monash University and his PhD in 2009 from the School of Public Health and Preventive Medicine, Monash University. His PhD thesis was entitled: "Developing and testing complex interventions for improving the use of evidence in clinical practice: a case study of the management of acute low-back pain in general practice".

Dr. French holds significant competitive research funding grants (over AUD \$2million) and is well published in the scholarly scientific peer reviewed literature with over 40 publications to date. He is a sought-after invited speaker to professional conferences and has received many accolades and awards.

Dr. French is the current Secretary/Treasurer of the Chiropractic and Osteopathic College of Australasia Research Limited, a newly established research funding body, and an Associate Editor of the open access journal *Chiropractic & Manual Therapies*.

Congratulations to Dr. French!



Queen's University Recognition Event - Dr. Drew Potter, Dr. Allan Gotlib, Dr. Marcia Finlayson, Dr. Richard Reznick, Dr. Bob Haig, Dr. Simon French, Dr. Natalia Lishchyna, Dr. Robert David

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# ACADEMIC APPOINTMENTS



Dr. John Srbely, DC, PhD University of Guelph

**Dr. John Z. Srbely** has been appointed to a tenure tracked position at the University of Guelph. He graduated from CMCC in 1992, certified in Acupuncture in 2000, received his PhD in Biomechanics and Neurophysiology in 2008 from the University of Guelph and was appointed Assistant Professor in September 2008 in the Department of Human Health and Nutritional Science, University of Guelph. He was awarded the 2005 CCA Young Investigator Award. He holds a CCRF Research Chair in Spine Mechanics and Neurophysiology and is a member of the Editorial Board of the *JCCA*. He is the Associate Chair of the Natural, Physical and Engineering Science Research Ethics Board at the University of Guelph. Primary research interests include the study of the neurophysiologic mechanisms of chronic pain, especially chronic myofascial pain syndrome and osteoarthritis, the study of central sensitization and its impact on chronic pain and the pathophysiology of chronic degenerative joint/spine disease. He is a Network Investigator for the Canadian Arthritis Network (CAN) studying pain and function in osteoarthritis.

## CCA Young Investigator Award

This award recognizes young researchers working in the field of chiropractic and is given for a paper submitted for this competition that has not yet been published, or for a recently published paper. The investigator has not had his/her degree longer than two years before submitting the work.

### 2013 Recipients: Dr. Carol Cancelliere, DC MPH Dr. Jessica Wong, BSc, DC, FCCS(c)



**Dr. Carol Cancelliere** has made very meaningful and exceptional contributions to the chiropractic community. Among her many outstanding achievements to date, she has recently published the research paper set out below which has had very high impact in scientific literature. As the "lead author" in this paper, Dr. Cancelliere has established herself

as a very capable young researcher and clearly in a position to collaborate effectively with world class researchers.

Cancelliere C, Cassidy JD, Côté P, Hincapié CA, Hartvigsen J, Carroll LJ, et al. Protocol for a systematic review of prognosis after mild traumatic brain injury: an update of the WHO Collaborating Centre Task Force findings. BMC Systematic Reviews 2012, 1:17 (Highly Accessed).

Carol graduated from CMCC in 2004, completed her BSc (Hons) at the University of Toronto in 2000 and her MPH at Lakehead University in 2011. She is a PhD student at the Institute of Health Policy, Management and Evaluation, University of Toronto, supervised by Dr. David Cassidy. She is a recipient of the CIHR Frederick Banting and Charles Best Canada Graduate Scholarships - Doctoral Award (2011-2012). Her thesis will focus on the incidence and prognosis of post-traumatic headache. As part of the International Collaboration on Mild Traumatic Brain Injury (MTBI) Prognosis, she has recently completed a systematic review on the prognosis after sport concussion (in press), and published a chapter in the Handbook of Work Disability: Prevention and Management regarding TBI. She is part of the expert consensus group to update the guidelines for MTBI and persistent symptoms and is currently working on return-to-work guidelines after MTBI.



**Dr. Jessica Wong** has shown outstanding abilities and skill as a young and maturing clinical investigator. Her exceptional talents have been recognized by CMCC and international organizations. She was awarded the CMCC Graduate Studies Best Rounds Award for her exceptional presentation skills. Dr. Wong was an outstanding Graduate student. During her

residency program, Jessica exhibited an extremely high level of productivity. In the two years of her program she has been published in multiple journals and has attended at conferences where she has had 2 presentations and 4 posters. Most recently she was awarded the top prize for the best paper at the World Federation of Chiropractic Congress in South Africa. Jessica completed the requirements of her two year residency program well ahead of the average resident, and was one of the first residents to successfully write her Fellowship exams within 4 months of completion of the graduate program. Dr. Wong is one of those rare clinician-scientists who have a tremendous potential to influence both her clinical discipline and academia.

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## The Value of Collaboration Chiropractic Research Working Groups

The chiropractic profession has undergone significant progression since its inception. This includes the shift towards an evidence-informed practice and the development/adoption of a research culture within the profession. The chiropractic research agenda has provided a continuous growth in knowledge, including evidence to the validity and benefits of chiropractic services. Indirectly, this has also enhanced the credibility of the profession within academic settings and mainstream healthcare. However, there continues to be a need for advancement of chiropractic research capacity in Canada, and simultaneously a need for greater intra- and inter-professional collaboration.

### Collaboration:

Frey et al. (2006) defines collaboration as "the cooperative way two or more entities work together towards a common goal". The concept of collaboration has been discussed widely, but it remains misunderstood and difficult to quantify. However, the future direction of research appears to be through collaboration. As exemplified by CIHR, multi-author projects are highly sought after and numerous grants/awards now favor projects which include multiple researchers contributing various skill sets and from a variety of academic institutions. Researchers and academic institutions alike are re-evaluating the value of partnerships; hence measures/actions have been taken to enhance collaboration within academic settings and professions.

Chiropractic working groups:

An innovative collaborative model was successfully created at McMaster University, called the McMaster Chiropractic Working Group (MCWG), and has since been replicated in a number of academic settings across Canada. The chiropractic working



group model was first developed in 2009 by Dr. John Riva and Dr. Steve Passmore. Feeling isolated from other chiropractic colleagues at McMaster University, Drs. Riva and Passmore created a venue for members of the chiropractic community, affiliated with McMaster University, to meet and exchange ideas as well as share teaching

or research opportunities. The group was composed mainly of affiliates of McMaster University publically funded programs including alumni, students, researchers, academics, faculty and educators. They formalized the idea of intra-professional collaboration by implementing the model with two main directives:

1. Become a productive contributor to research, education and administration at McMaster University

### 2. Service the chiropractic profession in improving patient care

Meetings are held on a quarterly basis. The meetings usually start in the form of an open discussion and summary of recently published work from members of the group. The discussion is followed by a presentation by one of the group's members, or by an invited guest, on completed work. The value of such collaboration is the interaction and exchange of ideas between members, resulting in new projects and joint efforts. In 2012 alone, two or more members of the MCWG contributed to 8 peer reviewed articles and 8 conference abstracts. Notably, graduate students have been encouraged to become actively involved, and this has provided a great opportunity for mentorship of future chiropractic researchers. Also, five members of the MCWG were directly involved in teaching and academic opportunities at McMaster University. Dr. Keshena Malik shares her personal experience as a member of the MCWG:



"I am fortunate to have been a member of the McMaster Chiropractic Working Group (MCWG) since August 2009. At that time, I was a new chiropractor and had embarked on pursuing my Master's degree at McMaster University. The MCWG provided me, a new graduate student, with the means to acquaint myself with other chiropractors

pursuing graduate studies in the University setting.

My experiences being a member of the MCWG provided me with opportunities for networking, research collaboration and knowledge acquisition both within and outside the chiropractic profession that may not have otherwise transpired. (...). Membership to the MCWG provided me with the opportunity to instruct second year practical musculoskeletal (MSK) skills training for medical students. Being a part of this group permitted me to become actively involved in and recognized for publications on several collaborative works in reputable peer-reviewed journals."

The working group is not only beneficial to graduate students; it has also proven effective for clinicians such as Dr. Craig Bauman who shares his thoughts on the value of the MCWG.



"I am the project manager for the mobility clinic at the Centre for Family Medicine family health team. We conduct research on primary care for patients with spinal cord injury.

I first became involved with the MCWG in 2009. (...). The MCWG has familiarized me with the language of research so that I can

more effectively assist the team. (...). The MCWG has provided me with access to peer members whose expertise provides valuable feedback and contribution with my scholarly writing. "

In addition to the benefits identified by Drs. Malik and Bauman, the group has experienced incredible success since 2009, due in part to the partnership and support of CCRF Chair Dr. Jason

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Busse, but also due to the stewardship of Dr. John Riva and engagement of members. The success of the chiropractic working group model is also reflected in the creation of new working groups at the University of Manitoba led by Dr. Steve Passmore, the University of Regina led by Dr. Paul Bruno and the regionally in Toronto led by Dr. Frances LeBlanc and Dr. Lise Rok.

The flexibility of the model has allowed other groups to adapt to their specific demographics and academic setting. For example, in Manitoba, the group has a strong medical focus, due in part to medical trainees, and collaborative opportunities. Remarkably, chiropractors from across the province have become interested and engaged in the working group and the evolution taking place is phenomenal. Similarly in Regina, chiropractic researchers and clinicians are partnering in fostering research activities and also, as a result, facilitating knowledge transfer to practitioners.

As an adjunct to the CCRF Research Chairs/Professorships, in universities across Canada, the growth of the chiropractic research network within and outside of academic affiliations is needed.

The working group model is one such example that is helping enhance collaboration and mentorship opportunities, while fostering growth of the chiropractic research capacity in Canada. Not only has the model contributed to building the network it has also created a greater chiropractic presence in the university setting. The CCA is pleased to support these groups. A similar model could be created in any academic setting, and interested parties are encouraged to contact: Dr. John Rivarivaj@mcmaster.ca at McMaster or Dr. Frances LeBlanc-FLeBlanc@chiropracticcanada.ca at the CCA.

# Has the chiropractic research capacity grown in the last 6 years?

In 2008, when the first attempt was made to quantify the Canadian Chiropractic research capacity, we found a dismal situation in Canada. Less than 1% of chiropractors in Canada were actively engaged in research and most of those were substantially under-funded. Research is a vital part of any health care profession and is necessary in advancing knowledge and linking discoveries with practice.

Over the last five years the chiropractic research capacity has grown enormously. There have been several new CCRF Research Professorships established at various universities across Canada in addition to the twelve that are already underway. However, the good news is that universities are now approaching the CCRF to make these professorships a reality, whereas when the program first started, the pioneer, Dr. Gotlib went knocking on their doors. Clearly times have changed, and now roughly 20 new PhD students are about to graduate and join the pool of full time researchers.

In light of this growth, it is time to take stock again and quantify exactly how much progress chiropractic researchers have made over the past 6 years. In 2014 a new survey will be circulated to all chiropractors in Canada to ascertain the real rate of growth in chiropractic research. Look out for more news on how you can participate in this survey and help forge the road to building a stronger chiropractic profession!





### • Dr. Pierre Côté, DC, PhD

University of Ontario Institute of Technology

• Award- Tier 2 Canada Research Chair (CRC) valued at \$500,000 over 5 years

Dr. Pierre Côté has been awarded the new Tier 2 Canada Research Chair (CRC) in Disability Prevention and Rehabilitation at the University of Ontario Institute of Technology (UOIT). The prestigious CRC is valued at \$500,000 over five years.

Dr. Pierre Côté graduated as a chiropractor from the Canadian Memorial Chiropractic College in 1989. In 1996 he obtained a Master of Surgery degree in the study of the Epidemiology of Neck and Back Pain in the General Population from the University of Saskatchewan. He completed his PhD in Epidemiology and a minor in Research Bioethics at the University of Toronto in 2002. Dr. Côté is currently the Director of the UOIT-CMCC Centre for the Study of Disability Prevention and Rehabilitation. He also holds appointments at the Dalla Lana School of Public Health at the University of Toronto and at Lakehead University. His research focuses on understanding the etiology of pain and disability related to musculoskeletal disorders. He aims to design interventions that will reduce the burden of chronic pain and disability in the population. He is also interested in the translation of scientific evidence into policy.

### Dr. Carlo Ammendolia, DC, PhD

- University of Toronto
- Award- \$359,958 from the Arthritis Society for 2013-2014

One of our Research Professors has just won a very significant award of \$359,358 from the Arthritis Society in the 2013/14 Strategic Operating Grant Competition.

Dr. Carlo Ammendolia DC, PhD is the PI and the Co-Investigators include: Rampersaud R, Côté P, Budgell B, Bombardier C, Hawker H.

The project is titled: "Self-Management to improve walking ability in degenerative lumbar spinal stenosis: the evaluation of four novel strategies".

Dr. Ammendolia holds the prestigious **University of Toronto "Canadian Chiropractic Research Foundation Professorship in Spine"** in the Faculty of Medicine. He is a clinical epidemiologist and Assistant Professor at Mount Sinai Hospital in Toronto, in the Rebecca MacDonald Centre for Arthritis and Autoimmune Diseases. Dr. Ammendolia is a member of the "*U of T Spine Program*" and sits on the Research committee and CME committee to develop educational programs for physicians for appropriate examination and management of both critical spine and non critical spine related disorders.

http://surgery.utoronto.ca/programs/spine/faculty.htm

### • Dr. Paul Bruno, DC, PhD

University of Regina

• Award- Saskatchewan Health Research Foundation (SHRF) Grant \$95,385

Dr. Paul Bruno has been awarded a significant Establishment Grant of \$95,385 from the Saskatchewan Health Research Foundation (SHRF). This award is funded through a 50:50 matching formula where SHRF provides \$47,692.50 and CCRF provides \$47,692.50.

Dr. Bruno obtained his Bachelor of Human Kinetics from the University of British Columbia (1999) and Doctor of Chiropractic from the CMCC (2004). He was a research fellow and lecturer at the Anglo-European College of Chiropractic in the UK from 2004-10. He was awarded the Elsevier International Post-Graduate Research Prize (2005, 2006, 2007) before receiving his PhD from the University of Portsmouth (2008). In July 2010, he was appointed Assistant Professor and CCRF Research Chair in Neuromusculoskeletal Health in the Faculty of Kinesiology and Health Studies at the University of Regina. Dr. Bruno's research program focuses on rehabilitative exercise therapy targeted at restoring optimal motor control strategies in patients with low back pain, with the long-term goal of establishing evidence-based clinical protocols for diagnosing specific motor control impairments in low back pain patients, allowing clinicians to more effectively target rehabilitative exercise therapy to the specific needs of individual patients.

You can read about the specific details of this SHRF program at this link. http://shrf.ca/Establishment%20Grants

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## Funding Awards

The CCRF is delighted to announce two very significant awards. The Alberta College and Association of Chiropractors (ACAC) has made a very substantial financial commitment to the Canadian Chiropractic Research Foundation to support our goals and mandate related to chiropractic research. This commitment has allowed CCRF to provide two world class researchers in Alberta with operating grants in 2013 each in the amount of \$30,000 to allow them to continue their critical research in our discipline.



**Dr. Walter Herzog PhD** at the University of Calgary is a **Canada Research Chair** in Molecular and Cellular Mechanics. His research is focused on the neuro-biomechanics of the musculoskeletal system. Dr. Herzog's expertise is in the area of growth, healing, and adaptation of soft (ligament, tendon, muscle, and articular cartilage) and hard

(bone) tissues. Within this area he works experimentally and theoretically on the molecular/cellular, in vitro, in situ, and in vivo level. His work also includes cell manipulation and mechanical testing and finite element modeling, continuum mechanics, simulations and theories of growth and adaptation. Dr. Herzog also holds the Killam Memorial Chair and is a Professor in Kinesiology, Medicine, Engineering and Veterinary Medicine.

Congratulations to Dr. Herzog!



**Dr. Greg Kawchuk DC, PhD** at the University of Alberta is a **Canada Research Chair** in Spinal Function. His research interests focus on defining the mechanisms that initiate and sustain spinal disorders so that clinically relevant strategies can be developed toward their prevention or resolution. A major component of his research involves developing

new technologies to assess spinal structure and function, then using those technologies to evaluate various clinical interventions. A suite of methodologies are being developed to assess spinal structure and function in both in vitro and in vivo settings. These methods utilize advancements in robotics, ultrasound, magnetic resonance imaging and kinematics. Using the methods developed in-house, Dr. Kawchuk is evaluating the mechanical and genetic responses of spinal tissues to various conditions (real or simulated) including therapeutic interventions. The performance of several methodologies developed in Dr. Kawchuk's team lab is now being evaluated in several human trials. He expects that some of these methods will be used to better diagnose spinal conditions or to evaluate various therapies.

Congratulations to Dr. Kawchuk!



**Dr. Diana De Carvalho** has been awarded the Association of Canadian Ergonomists Founders' Award for Doctoral Research at the 44th Annual Conference held October 8-11, 2013 in Whistler, BC.

Her conference paper was entitled, "Back pain and sitting: are chairs or breaks the

answer?". The paper presents findings from two major components of my doctoral thesis. The award consisted of a framed certificate and \$376.

Dr. Diana De Carvalho is a PhD candidate at the University of Waterloo supervised by Dr. Jack P. Callaghan. Dr. De Carvalho is completing her doctoral thesis examining the effect that office chair design features and movement strategies have on biomechanical factors during prolonged sitting. She has also developed a dataset capable of providing reasonable estimations of the radiographic lumbar lordosis angle from external inclinometric measures for both genders and has collected bilateral intramuscular recordings of the lumbar multifidus muscle during spine manipulation. Her work has been funded by a CIHR Doctoral Research Award, an Ontario Graduate Scholarship, four University of Waterloo President's Scholarships as well as a seed grant from CRE-MSD. She has also received a Certificate in University Teaching from the Center for Teaching Excellence at the University of Waterloo and continues to publish case reports from her private practice at the University of Guelph Health and Performance Centre.



## Research Sponsorship

To recognize and support academic excellence and to promote chiropractic research, the Ontario Chiropractic Association (OCA) is prepared to offer financial support for qualified research. This will be accomplished through the distribution of a limited funding program that is derived from a portion of the OCA's annual operating budget as approved by the Board of Directors.

The priority areas of research involvement for the OCA include:

**1.** Research evaluating or demonstrating the value of chiropractic services to patients, payers and other stakeholders

**2.** Integration of chiropractic into the health care system through collaborative health services delivery research

**3.** Support of the Chiropractic Research Chairs / Professorships at Canadian Universities

**4.** Support for the establishment of chiropractic schools / faculties / divisions / departments in Canadian universities.

The OCA has established a research sponsorship budget 2 years in advance in order to provide the research community with significant lead time to submit proposals. Proposals will be accepted up until February 1 of each year for funding, available in August of that year. The OCA Board may, at its discretion, accept multiple-year proposals, or decide to not allocate any funds.

• For the fiscal year Aug 1 2014 – July 31, 2015 \$155,000 of unallocated funds is available. This funding will be allocated on the basis of proposals received by February 1, 2014 and will be available August 2014.

• For the fiscal year Aug 1, 2015 to July 31, 2016 \$155,000 of unallocated funds is available. This funding will be allocated on the basis of proposals received by February 1, 2015 and will be available August 2015.

This allocation process is intended to ensure the best use of member's money, reduce ad hoc funding requests and provide for better planning through identification and prioritization of all potential funding requests before considering any funding decisions. For further information please contact the OCA directly.

### 2013 Research Symposium Canadian Chiropractic Association Hosts Biennial Research Symposium on Advancing the Canadian Chiropractic Research Agenda

### **Research Symposium a Success!**

The Canadian Chiropractic Association recently hosted the biennial Research Symposium on "Advancing the Canadian Chiropractic Research Agenda" this past September in Toronto. This leading, prestigious event brought together a university-based collaborative network of 50 world-class chiropractic researchers from 16 universities across Canada, with academic expertise in the disciplines of neurophysiology, biomechanics, epidemiology and cellular/molecular biology. The Research Consortium meets every two years to address the key issues and priorities facing the chiropractic profession and the growing need to close the research-practice gap. Click here to view the Symposium Brochure.

This year's theme focused on *Closing the Research-Practice Gap in Neuromusculoskeletal Health, Injury and Disease.* There were an unprecedented 15 sponsors of this collaborative event including the CCA, CCPA, CCRF, College of Chiropractors of British Columbia and La Fondation de recherche chiropratique du Québec. BC distinguished itself by having both the Association and the College sponsor the event. Most extraordinary however was that every single provincial chiropractic association was a sponsor, marking a highly significant measure of support across Canada for facilitating chiropractic research.

Featured speakers this year included Dr. Michael G. Fehlings, MD, PhD, FRCSC, FACS, Halbert Chair in Neural Repair and Regeneration, Medical Director of the Krembil Neuroscience Centre, and Professor of Neurosurgery and Head of Spine Program at the University of Toronto, and Dr. Hani El-Gabalawy, MD, Scientific Director, Institute of Musculoskeletal Health and Arthritis at the Canadian Institutes of Health Research. Dr. Colin Carrie, BSc (Hons.), DC, Parliamentary Secretary to the Minister of the Environment was the keynote speaker at a dinner reception held September 27th.

Dr. Fehlings presented the collaborative and innovative "Spine Program" at the University of Toronto in the Department of Surgery which includes Dr. Mark Erwin, a cellular/molecular biologist at Toronto Western Hospital, and Dr. Carlo Ammendolia, a clinical epidemiologist at Mt. Sinai Hospital http://surgery.utoronto.ca/programs/spine/faculty.htm

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The attendees heard the insightful and stimulating views of our world-class researchers, the leading minds in the profession such as Dr. Jay Triano, **Dr. David Cassidy**, Dr. Walter Herzog, Dr. Gabrielle van Velde, Dr. Greg Kawchuk, Dr. Pierre Côté and Dr. Jean-Sébastien Blouin.

Dr. David Cassidy

Some of the highlights discussed during the plenary included:

• A workshop on systematic reviews that emphasized the need to appraise the quality of the literature using the GRADE evidence profile approach. GRADE offers a variety of factors for assessing studies, including items such as limitations, consistency, directness, and precision

• CIHR offered a grant development workshop where many useful items were discussed such as ensuring proposals include a clear and operational study objective and stating the burden of illness within the first sentence of grant submissions. Additionally CIHR outlined the new process by which grants will be assessed. Two separate groups will be assessed: 1) Veteran researchers in the "foundation scheme" and all other researchers in the "project scheme". Lastly, SPOR networks will be used to address the deficits in funding for specific research areas.

• Integration into the university system and the need for building networks within each university now that the research chairs/professorships are in place and planting roots.

• Dr. Simon Dagenais presented the need to qualify the utilization of chiropractic services in a managed care setting, as the concept of medical necessity for musculoskeletal disorders is not clearly defined. An example of the use of a tool that includes the SF12 survey (a general health outcome measure) to assess patients was given to help determine the need for chiropractic care.

• The need for students to become more actively engaged in research and to connect chiropractic education to the research environment.

• One possible solution to improve research capacity is to follow the example currently in place in Denmark where clinicians are employed in collecting data and doing research- this strategy has been very successful to date.

### Main Ideas Going Forward:

1) Refine the "Chiropractic Research Agenda" to better address the health, injury and disability challenges facing Canadians throughout their lifecycle.

2) Continue to rapidly grow the profession's research capacity and develop research expertise with a view to addressing and reducing the economic burdens of health on Canada's health care system and health research system. **3)** Increase synergy with universities and other educational institutions, decision makers, clinicians and other stakeholders to continue to develop research programs in academic centres of excellence.

**4)** Link Canada's 7,000 chiropractors in clinical practice with university-based researchers via interactive databases to facilitate clinical interventional research and comparative measurement of outcomes.

**5)** Facilitate NMSK research, strengthen cross-disciplinary collaboration and translate chiropractic research into better health for Canadians.

The group highlighted many important areas of concern as well as solutions that may change the perception of the chiropractic profession in Canada. Although the profession has come a long way there is still much work needed as clearly outlined by the recurring themes seen above. Currently there are less than 50 full time active chiropractic researchers for the over 7000 chiropractors serving 35 million people in Canada. The accomplishments made by this mere 1% of chiropractors in Canada is astounding, one can only imagine what can be accomplished if we are able to increase the number of active researchers to even 5 or 10%? The possibilities seem endless! For now we can look to countries such as Denmark for examples of what integrated health systems that have fully embraced chiropractors have to offer to help overcome some of the obstacles facing the profession in Canada.

The research consortium aims to promote and facilitate trans-disciplinary chiropractic research that will propel the profession into the future. The Symposium offers a perfect venue where these minds are able to meet and discuss many of their ongoing and future projects. In addition to moving the chiropractic profession forward, one of the main goals of this meeting of the minds is to foster inter-professional collaboration between scientists that may not ordinarily have the chance to collaborate. This year's symposium is no exception to the past in that it has managed to nurture connections that will lead to grant proposals that will hopefully result in novel scientific research. This research is essential to leading the chiropractic profession to the next chapter of its evolution as an integrated member of the healthcare teams caring for all Canadians.

Plans are already underway for the next Research Symposium in 2015 and it will be riveting!



Dr. Maja Stupar, Dr. Allan Gotlib and Dr. Pran Manga

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## CCRF Membership Campaign Message



Dr. David Leprich, October 8, 2013,

Chiropractors often ask "how does research affect my practice or benefit my patients?" This is a fair question. The realm of research is far removed from daily practice. It is difficult to

stay informed about what our Canadian chiropractic research team is doing. It is even more difficult to evaluate the results of their work and determine how it can assist us in practice. This is about to change. After more than a decade of laying the groundwork, our university based research chairs are on the verge of establishing chiropractors as the experts in neuromusculoskeletal (NMSK) conditions. From spinal stenosis to degenerative disc disease, our profession will no longer be seeking just to establish credibility in these areas. Rather, we will be seen as leaders in helping an aging population successfully cope with chronic disabling back problems. We have our Canadian chiropractic research team to thank for this.

We now have 13 PhD chiropractors functioning as research chairs or professors at leading Canadian universities. In addition, we have 18 PhD candidates who will soon be ready to assume important roles in our research program. These chiropractors and the work they do are supported by chiropractic associations, various levels of government and the universities. Our role as individual chiropractors is to support the structure which pilots this program. The Canadian Chiropractic Research Foundation is the organization which seeks out potential positions for our researchers and promotes the results of their work. Your CCRF membership has helped get us to this point. Your continued membership will help finally establish chiropractic as the NMSK experts. Go to www.CanadaHelps.org to renew your membership. Enter "Canadian Chiropractic Research Foundation" in the search box. You will receive an immediate tax receipt. This may be the most significant contribution you can make to the profession. Do it now!



## DR. CHRISTOPHER L. MARTIN, DC Message

Our researchers continue to produce and publish at the highest level, advancing this profession's credibility within the broader health care arena. They continue to cultivate respect and recognition for their quality work in co-operation and collaboration with other world class researchers. We are being noticed! This type of research leads to, and advances improvements to the health and welfare of all Canadians and provides the profession with new tools and strategies that they can bring to their daily practice protocols. One example is the work of Dr. Carlo Ammendolia, who holds the CCRF Professorship in Spine, in the faculty of Medicine, at the University of Toronto. He is also an assistant professor at Mount Sinai Hospital in the Rebecca MacDonald Centre for Arthritis and Autoimmune Diseases.

Dr. Ammendolia has developed strategies and protocols for assessing, diagnosing and treating a number of degenerative spinal conditions that you the practitioner use in your office daily.

He is bringing his research findings directly to the practitioner and the patient, to increase the effectiveness of care and the health outcomes for the patient. This is but one example of the benefits our researchers are and will bring in the future to directly impact our practices and the health care of our patients.

If we truly wish to effect change in our practices and improve the lives of our patients, we need to invest in our researchers. Simply go to www.canadahelps.org and follow the links. Membership for the year is \$125 and will be one the best investments you can make.

Dr. Christopher L. Martin, DC Chair, CCRF

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## **CCRF Membership Opportunities**

Help us reach our goals! In 2013, the Research Foundation will see up to 2 more university-based Chiropractic Research Chairs/Professorships become available. Each Chair/Professorship requires a minimum of \$500,000, so please be generous.



Each Foundation member will receive a tax receipt for full donation amount, the Chiropractic Research Newsletter, a listing in the Newsletter if you wish, and a Membership Certificate for your office.				
<ul> <li>Bronze Membership</li> <li>Gold Membership</li> <li>Benefactor Membership</li> </ul>	\$ 1,000	Platinum	mbership Membership Membership	\$ 5,000
Every dollar you donate helps us reach our goals!				
<ul> <li>Less than 1% of chiropractors in Canada are actively engaged in research.</li> <li>Chiropractic researchers in Canada are substantially under-funded.</li> <li>Many chiropractic researchers and graduate students are solely self-funded.</li> <li>There is an urgent need to continue to build chiropractic research capacity.</li> </ul> Membership Information (please enclose with your membership payment):				
Name:				
Address:				
City:	Province:		Postal Code:	
Tel:	Fax:		-	
Email:				
Amount:				
Please send completed membership form to: Canadian Chiropractic Research Foundation / La Fondation canadienne pour la recherche en chiropratique Suite 6, 186 Spadina Avenue Toronto, ON M5T 3B2 Tel.: 416-585-7902 Toll Free: 1-877-222-9303 Fax: 416-585-2970				
For further information, contact Sareekha Singh, CCA Research Manager Tel: 416-585-7902 ext. 236 • Email: ssingh@chiropracticcanada.ca Toll free: 1-877-222-9303 • Fax: 416-585-2970				

www.canadianchiropracticresearchfoundation.com

