

Canadian Chiropractic Research Bulletin #8



Dr. Chris Martin DC

The CCA Research Committee

Dr. Chris Martin (BC) - Chair

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The Canadian Chiropractic Association (CCA) Research Committee activities continue to be focused on "**Helping Canadians live healthier lives**". Since our last update, many very positive activities and events have occurred about which I am delighted to report.

- Dr. Greg Kawchuk DC, PhD, who is Canada's 1st university-based Chiropractic Research Chair has been *nominated* for a Canada Research Chair Tier II at the University of Alberta in Edmonton. This is a very significant milestone for the chiropractic profession. In addition, he has also become a member of the CIHR Peer Review Committee on Movement and Exercise.
kawchuk@ucalgary.ca
- The CCA's next university-based CIHR Chiropractic Research Chair has been awarded to Dr. Mark Erwin DC, who is currently a PhD candidate at the University of Toronto and he will defend his work in September. He will take up the Chair in Phase II of the award. The **Ontario Chiropractic Association** has provided true leadership and stewardship in funding this CIHR/CCRF partnered award and the entire OCA Board of Directors is to be commended. Building our intellectual research capacity and mobilizing interdisciplinary research will ensure our future.

- On the October 4-5, 2002 we held our 3rd world class scientific Research Symposium with speakers such as Dr. Mark Bisby, Vice-President-Research, CIHR and Dr. Arne Ohlsson, Director, Cochrane Collaboration in addition to our growing number of excellent chiropractic researchers. Check out the JCCA March issue at www.jcca-online.org to view “Evidenced based chiropractic care: Cochrane systematic reviews of health care interventions” and the “Report on the development of Canadian Clinical Practice Guidelines”.
- The CCA Research Agenda document has been further refined by the members of the Consortium of Canadian Chiropractic Research Centers at a CIHR/CCA funded Research Agenda Workshop. The Workshop, another historic first for our profession, was funded by four CIHR Institutes:

Institute of Musculoskeletal Health and Arthritis (IMHA)

Institute of Aging (IA)

Institute of Neuroscience, Mental Health and Addiction (INMHA) and

Institute of Population and Public Health (IPPH)

Dr. Cy Frank, IMHA Scientific Director (University of Calgary) and Dr. Elizabeth Badley, IMHA Advisory Board (University of Toronto) were featured speakers and brought tremendous insight to the Workshop.

The CCA Research Committee will be consulting with the CCA membership to provide a comprehensive opportunity for all of our members to participate in

setting the Association’s final research agenda for the next ten year period.

- Dr. Allan Gotlib, JCCA Editor and CCA Director, Research Programs, has recently been elected to the Executive Committee of the Canadian Cochrane Network and Center (CCN/C).
www.cochrane.org
- Two new members have been added to our Research Consortium, Dr. Jeff Quon DC, MHS at the University of British Columbia and Dr. Norman Teasdale PhD at Université Laval.
- The CCA Young Investigators Award was presented to Dr. Danielle Stewart-Smith at our Research Symposium in Toronto. Her work on mechanical disc properties during compressive loading is reported in the JCCA (Dec/02) and was supervised by Dr. Greg Kawchuk.
www.jcca-online.org
- Dr. Shari Wynd DC, (PhD candidate) in the Alberta Provincial CIHR Training Program in Bone and Joint Health at the University of Alberta and University of Calgary has been awarded a second year of funding in this very specialized competitive CIHR program.
- Dr. Gotlib has been participating in a sub-committee convened by Dr. David Phipps PhD, Director of Partnerships at the CIHR and has helped to extend the partnership program for a 3 year period.

Many of the activities set out above, represent significant milestones. Having the CIHR recognize and fund a CCA

Research Workshop for chiropractic researchers and the chiropractic profession not only brings tremendous credibility, but provides opportunity to align our agenda with the CIHR research agenda and place our profession and our researchers in a better position to effectively compete for millions of federal dollars available from CIHR to undertake “*Chiropractic Research*”.

CANADA’S NEXT UNIVERSITY-BASED CHIROPRACTIC RESEARCH CHAIR

Dr. Mark Erwin DC, recently awarded Canada’s 2nd university-based Chiropractic Research Chair, is now following in the foot-steps of Dr. Greg Kawchuk DC, PhD. Currently he is a PhD candidate at the Institute of Medical Science, Faculty of Medicine, University of Toronto and he is set to take up the Chair in Phase II of the CIHR Award.

Dr. Erwin’s research project concerns the observation that certain animals are spared from developing degenerative disc disease whereas others (including humans) are not. There is a fundamental difference in the cell populations of the disc nucleus amongst these species differences and Dr. Erwin has relentlessly investigated what these differences are and how they function. He has now identified certain species of proteins produced by these cells of interest and has evaluated expression of important genes unique to chondrogenesis. His goal is to some day be able to treat degenerative disease of cartilage matrix at the molecular level so as to slow down, reverse or even prevent degenerative disc disease. The notion appeals to him because it is a clinical problem that faces all health-care

disciplines and brings together many fields of study including histology, pathology, physiology, biomechanics, clinical epidemiology, surgery, rheumatology, genetics and molecular biology.

He is completing his doctoral work this September and preparing for his post-doctoral training. He hopes to be able to help mentor other investigators yet to come and make their path a little easier since he thinks that he’s made all of the mistakes possible. As the next university-based Chiropractic Research Chair in Canada he is “delighted beyond words” and is “grateful to the CCA, CCRF, OCA and CIHR and feels privileged to join Dr. Greg Kawchuk in this honour”.

Dr. Erwin’s award is funded by the Ontario Chiropractic Association and the Canadian Institutes of Health Research and represents a \$300,000 investment in chiropractic research.

Investing in people has been the driving principle of the Canadian Chiropractic Association (CCA), and the Canadian Chiropractic Research Foundation (CCRF), and now the Ontario Chiropractic Association (OCA) who have joined the national program. The Ontario Chiropractic Association has provided a wonderful opportunity to foster the development of our intellectual research capacity. By supporting university - based chiropractic researchers and in particular this Chiropractic Research Chair, they provide opportunities for chiropractic researchers to assume leadership roles and mentor future young researchers. Collaborative approaches enable our

integration into the health care system and the university system and the OCA is to be commended for such leadership.

INVESTING IN “PEOPLE” HAS PAID BIG DIVIDENDS.

DEVELOPING A RESEARCH CULTURE IN CHIROPRACTIC

We are starting to see the seeds we planted years ago begin to blossom. The CCA had the foresight and leadership to plan for the future – a future secured through chiropractic research undertaken by chiropractors who are fulltime university-based researchers and who will trail blaze the path for future chiropractors.

Our strategies of building *relationships* with federal granting agencies, universities, and research organizations, based on trust and credibility, advances our integration into Canada’s health care system. We have “*invested in people*”. University-based research is consistent with both The CCA Mission Statement and our new Vision. The CCA and the CCRF have excellent working relationships with CIHR and the Canadian Cochrane Network. We have established Canada’s 1st university-based Chiropractic Research Chair at the University of Calgary and provided the opportunity for our 2nd Chair at the University of Toronto. ***We have plans for many more Chairs across Canada.*** We have a university-based Research Consortium that is growing and we facilitate a bi-annual world class Research Symposium. Our Consortial Network is beginning to build multi-institutional working relationships. Look at the two Consortial Network Projects.

We are establishing linkages with the University of British Columbia, University of Alberta, University of Calgary, University of Toronto, University of Quebec at Trois-Riviere, University of Quebec at Montreal, Laval University, U of Guelph and building strong collaborative relationships.

The vision of The Canadian Chiropractic Association is for every Canadian to have full and equitable access to chiropractic care.

What better way than through university-based research!

All of these activities have created our viable research culture and it is absolutely essential that we continue to nurture its growth.

CIHR AWARD RECIPIENTS

Our list continues to grow and we are delighted for the success that these researchers have enjoyed.

Dr. Jean-Sébastien Blouin, DC, MSc, PhD candidate, CIHR Fellowship award at Laval University funded by the CIHR and La Fondation Chiropratique du Québec (FCQ).
jsblouin@kin.msp.ulaval.ca

Dr. Jason Busse DC, MSc
CIHR Fellowship 2003
McMaster University
j.busse@utoronto.ca

Dr. Pierre Cote DC, PhD
CIHR New Investigator Award 2003
University of Toronto
pcote@iwh.on.ca

Dr. Mark Erwin DC
CCA/CIHR/CCRF/OCA Senior
Research Fellowship/Chiropractic
Research Chair 2003
University of Toronto
mark.erwin@utoronto.ca

Dr. Jill Hayden DC
CIHR Fellowship Award
University of Toronto
jhayden@iwh.on.ca

Dr. Greg Kawchuk DC, PhD
CCA/CIHR Chiropractic Research Chair
University of Calgary
kawchuk@ucalgary.ca

Dr. Annalyn Mercado PhD
CCA-CIHR Doctoral Research Award
University of Saskatchewan
Annie653@hotmail.com

Dr. Jeff Muir DC, MSc
CIHR Fellowship 2002
McMaster University
muirj@interlynx.net

Dr. Jeffrey Quon DC, MHSc
CIHR Fellowship
University of British Columbia
quon@interchange.ubc.ca

Dr. Gabrielle van der Velde DC
CIHR Fellowship
University of Toronto
gabrielle.vandervelde@utoronto.ca

Dr. Shari Wynd DC
Alberta Provincial CIHR Training
Program in Bone and Joint Health at the
University of Alberta and University of
Calgary
sewynd@ucalgary.ca

CANADIAN CHIROPRACTIC RESEARCH FOUNDATION

I want to thank *all of the provinces* and in particular, Alberta, British Columbia, Saskatchewan and New Brunswick, for their longstanding and continued support of The CCA with their substantial contributions to the CCA/CCRF national research program. They have set the stage for our continued success and on behalf of the CCA, the CCRF, the profession and our researchers, I sincerely thank each of them for their commitment to our goals.

Recently, Manitoba and Ontario have partnered with the CCRF and provided tremendously significant funding. The CCA in concert with the CCRF, uses these funds *and those of other stakeholders*, to leverage significant opportunities such as creating and funding additional university-based Chiropractic Research Chairs such as Canada's 2nd Chiropractic Research Chair - Dr. Mark Erwin. Our goal of building research capacity through strategic relationships such as the historic partnerships with the CIHR will better position chiropractic research and researchers and ensure long term growth and professional survival.

As you can see, the Foundation has been quite busy this past year facilitating new university-based Chiropractic Research Chairs especially in Toronto and hopefully in Halifax, Calgary, Winnipeg and also in Quebec. As well, our funding sources are increasing and provincially we welcome Manitoba and Ontario this year.

In Manitoba, Dr. Martin Gurvey (Winnipeg), a CCRF Director, and Dr.

Greg Kawchuk (Calgary) recently made a tremendous presentation to the Annual Membership meeting in Manitoba in an effort to restore Manitoba's previous level of research funding (\$100 per member per year) and they were successful. This represents an additional \$22,000 per year directed to the CCRF in support of chiropractic research initiatives. They are to be congratulated for their success. We commend the Manitoba Chiropractors' Association and all Manitoba chiropractors for their commitment to research.

In Ontario, the Ontario Chiropractic Association has committed to partnering with the CCRF and CIHR in support of our 2nd university-based Chiropractic Research Chair with \$38,000 per year for 4 years. We are enormously thankful to the OCA and all 3000 Ontario chiropractors for their support.

Fundraising events have also been tremendous. I am pleased to report that the Foundation has received a \$15,000 donation from the proceeds of a golf tournament in Calgary this summer organized by the Calgary Chiropractic Society and the Rodin Law Firm. Their next tournament is June 28, 2003 at Shae-Nee slopes and they are shooting for \$20,000 this year. Our plans are to develop similar venues across Canada to support chiropractic research.

The Edmonton Chiropractic Society Run/Walk for Chiropractic Research raised \$3500. This year the Society is hosting the 2nd Annual Backs in Action Run/Walk on July 6, 2003 with proceeds going to the Canadian Chiropractic Research Foundation.

The CCA's endorsement program with Johnson Inc. provided \$2340 for the last 6 months period of 2002 alone, with proceeds going to the CCRF.

Just some of the Foundation's current funding commitments in 2003 include:

- Dr. Jeff Quon at the University of British Columbia in a CCRF, CIHR, British Columbia College of Chiropractors partnership.
- Dr. Walter Herzog at the University of Calgary in a CCRF and College of Chiropractors of Alberta partnership.
- Dr. Greg Kawchuk at the university of Calgary in a CCA, CIHR, FCER, CCRF partnership.
- Dr. Mark Erwin at the University of Toronto in a CCA, CCRF, CIHR, Ontario Chiropractic Association partnership.

Our relationship with CIHR has been fruitful and must be continued because it builds our profession's credibility and trust with government.

I invite *all Canadian chiropractors* to become members of the CCRF. Your \$125.00 membership fee supports so many worthy projects and is vital to our profession's goals. Become a part of this Foundation and help us grow! The Foundation would like to raise ***\$1 million per year*** in order to maximize its leveraging opportunities. While we are getting on the bases, we need to hit a home run! Please support the Foundation. All of your donations are tax deductible.

Our Research Foundation continues to grow and we are delighted to welcome these new 2003 members:

- Dr. Robert Allaby
- Dr. Jason Busse
- Dr. Dwight Chapin
- Dr. Jeffery Charron
- Dr. Dena Churchill
- Dr. Elaine Eglin
- Dr. Dale Forsythe
- Dr. Chris Garwah
- Dr. Martin Gurvey
- Dr. Ryan J Hoover
- Dr. Patti Hort
- Dr. Ross Hoshizaki
- Dr. Eric Jackson
- Dr. Susan Joshi
- Dr. Bob Kariatsumari
- Dr. Rahim Karim
- Dr. Larry T. Kinakin
- Dr. Bruce Kleinknecht
- Dr. Mark Labreque
- Dr. Todd Lizon
- Dr. Kevin Mahoney
- Dr. Donald Millar
- Dr. Evangelos Mylonas
- Dr. Alma Nenshi
- Dr. Lynette Nissen
- Dr. Timothy Peloso
- Dr. Irene Pennimpede
- Dr. Mark Perrett
- Dr. Dave Peterson
- Dr. David Reinhart
- Dr. Ivan Rostotski
- Dr. Travers Roy
- Dr. Preet Sehmi
- Dr. Kristine Self
- Dr. Andrew Somogyi
- Dr. W. Allen Smith
- Dr. Richard Smolen
- Dr. Dean Summers
- Dr. Natalya Telenchenko
- Dr. Hans Teschl
- Dr. Kathryn Tessier
- Dr. Mark Timmins
- Dr. Herb Vear
- Dr. Jen Walraven

- Dr. Shannon Wandler
- Dr. Ronald Warkman
- Dr. Kenneth Wilson
- Dr. Dean Wright
- Dr. Kenneth Zachkewich

The contributions of these new Foundation members are immensely appreciated and tremendously helpful. Thank you!!

If each of Canada's 6000 chiropractors was a member of the Foundation, collectively we would have \$750,000 dollars to *leverage*.

And just imagine if we all committed \$500 dollars to the Foundation – that's \$3 million to leverage. Two of our current members have made that extraordinary commitment to the Foundation and this moves us that much closer to a university based Chiropractic Research Center of Excellence. Are you getting excited yet!!!

If you would like to become a member please send Dr. Allan Gotlib an email request for a membership application and help us continue to provide critical funding to our chiropractic researchers and our research projects. algotlib@ccachiro.org

PLEASE JOIN US AND HELP
CATAPULT OUR PROFESSION

**DR. JEFF QUON DC, MHSc,
PhD candidate - UPDATE**

Dr. Jeffrey Quon is in his third year of doctoral studies in the Department of Health Care and Epidemiology, Faculty of Medicine, at the University of British Columbia (UBC). He completed all of

his required coursework in the spring of last year and then successfully sat his comprehensive examination in the fall. Earlier this year he had his thesis proposal approved by the thesis screening committee in his department and has since been officially 'Admitted to Candidacy' at UBC.

Dr. Quon's thesis research will examine the effect of the timing of surgery on postoperative outcomes in patients with lumbar disc herniation (LDH). Studies to date provide limited evidence of an association between symptom duration and postoperative outcomes, however the independent effect of the timing of surgery still needs to be verified and described in terms of psychometrically validated outcome measures while also controlling for other important prognostic variables. If an independent effect of timing is identified, this will help to define an optimum window within which surgery is most appropriate for patients with LDH. Moreover, in this age of constrained health care resources and lengthy surgical wait lists, such information will better determine when (or if) lumbar discectomy can be deferred indefinitely for patients with symptom durations exceeding a window for optimum benefit. On the other hand, if the timing of surgery is found *not* to influence postoperative outcomes, patients and clinicians can be reassured that there is never a point in rushing into an operation in the absence of other existing evidence based criteria for surgery.

Dr. Quon's thesis research will also be quantifying the effect of surgery on work productivity and other occupational outcomes. Recent studies have demonstrated that interventions that

result in successful functional/clinical outcomes do not necessarily lead to improvements in traditional measures of work status. Time to return-to-work, for example, is easy to extract from administrative data sources and personnel records, however this measure does capture the full impact of health or disability on an individual's on-the-job performance. Furthermore, the return-to-work concept does not distinguish the degree to which absence from work is due to job dissatisfaction, excessive workload and/or personnel policies that support taking time off from work, rather than diminished health/functional status alone. There is an urgent need for the development of multidimensional work outcome measures that more appropriately capture the social and psychological determinants of return-to-work, and which capture the full impact of health on an individual's actual productivity within the workplace.

Dr. Quon will also be looking at how work-related outcomes are affected by other variables, including disability compensation, occupation and chiropractic treatment. Finally, he is also collaborating on a separate proposal for a study to examine the effectiveness of chiropractic treatment for acute neck pain in a specialized emergency room setting. This proposal is still in the conceptual phase, but may involve a randomized controlled trial comparing a single chiropractic visit in the emergency room to a single emergency physician visit in the same setting. Researchers from the Department of Emergency Medicine at Vancouver General Hospital are interested in determining whether chiropractic manipulative therapy is associated with averted complications from drug

therapy, effective on-the-spot pain relief, and greater patient satisfaction.

Dr. Quon is a CIHR Fellowship recipient, a 3 year award which is supported by CIHR, Canadian Chiropractic Research Foundation and the British Columbia College of Chiropractors.

LA FONDATION CHIROPRACTIQUE DU QUÉBEC

The Fondation chiropratique du Québec, has taken great strides to advance chiropractic research in Quebec and has fostered some wonderful opportunities for which they are to be congratulated.

The Foundation has some 200 members and corporate donors which provides support to such researchers and projects as: Dr. Jean Boucher PhD at UQAM working on “the effect of the chiropractic adjustment at the level of the central nervous system”, and Dr. Christian Linares of UQTR who is working on the effect of the chiropractic adjustment upon the molecular marker in the gastro-intestinal tract, and Dr. Jean-Sebastien Blouin, a PhD candidate at Laval who holds a CIHR/FCQ partnered Fellowship award.

The Fondation has an excellent collaborative relationship with the CCRF. Congratulations to Dr. Guy Beauchamp and his Board members.

www.fcq.qc.ca

CONSORTIUM OF CANADIAN CHIROPRACTIC RESEARCH CENTERS (CCCRC)

Symposium

The CCA and CCRF will facilitate the 4th symposium by sponsoring the event in concert with the Consortium that will once again be host. The Call for Abstracts will be sent out this fall. Consortial members will be presenting their latest research. Contact Dr. Jean Boucher PhD, who is the convenor, at oucher.jean_p@uqam.ca for early information regarding the symposium scheduled for October 2004 in Quebec. Don't miss this essential symposium.

ADVANCING CHIROPRACTIC RESEARCHERS

Recent PhD's

Dr. Pierre Côté DC, PhD,
Newly appointed Assistant Professor,
Department of Public Health Science,
Faculty of Medicine, University of
Toronto, and Scientist, Institute for
Work and Health, and Assistant Editor,
JCCA.

pcote@iwh.on.ca

Dr. Annalyn Mercado PhD
University of Saskatchewan
Annie653@hotmail.com

PhD candidates

Dr. Carlo Ammendolia DC, MSc
University of Toronto, Institute of
Medical Sciences.

ammendol@sympatico.ca

Dr. Jean-Sebastien Blouin DC, MSc
Université Laval
jsblouin@kin.msp.ulaval.ca

Dr. Martin Descarreaux DC, MSc
Laval University
martin.descarreaux@kin.msp.ulaval.ca

Dr. Mark Erwin DC, MSc
University of Toronto
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Dr. Jill Hayden DC
University of Toronto
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Dr. Kevin McLaughlin DC, MSc
University of New England,
New South Wales, Australia
altmeddoc@hotmail.com

Dr. Jeff Quon DC, MHSc,
University of British Columbia.
quon@interchange.ubc.ca

Dr. Bruce Symons DC, MSc
University of Calgary
bruce@kin.ucalgary.ca

Dr. Gabrielle van der Velde DC
University of Toronto
gabrielle.vandervelde@utoronto.ca

Dr. Howard Vernon DC,
University of Glamorgan,
Cardiff, Wales, United Kingdom.
hvernon@cmcc.ca

Dr. Shari Wynd MASc, DC
University of Calgary
shariwynd@canada.com

Recent Master's

Dr. Francois Hains DC, MSc
University of Montreal
fhainsdc@videotron.ca

Dr. Doug Lawson BA, DC, MSc
Faculty of Medical Science
University of Calgary
drlawson@cceb.ca

Dr. Justin Marcotte DC, MSc
Université du Québec à Trois-Rivières
justin_marcotte@uqtr.quebec.ca

Masters candidates

François Auger, DC
University of Quebec in Montreal

Sophie Boulianne, DC
University of Quebec in Montreal

Dr. Jason Busse DC, MSc
McMaster University
j.busse@utoronto.ca

Dr. John Dufton DC
University of British Columbia
jdufton@interchange.ubc.ca

Dr. Diane Forbes DC
University of British Columbia
a1a75452@telus.net

Dr. Drew Oliphant DC, FCCO(C)
Royal Melbourne University (Austr) and
Southern California University of Health
Sciences
dr-o-chiro@shaw.ca

Jean-Roch Pinette, DC
University of Quebec in Montreal

Dr. Mark Pitcher DC
Memorial University of Newfoundland
mpitcher@avint.net

Dr. Nadia Richer DC
Laval Université

Congratulations to these dedicated clinicians who are making extraordinary commitments to our profession and are our profession's future researchers.

If you have a Masters Degree or a PhD and you are not listed above, please let Dr. Allan Gotlib know. He is developing a database for a variety of purposes and it would be helpful.

STUDIES/PROJECTS UNDERWAY

Please see Bulletin #7 for an in depth description of ongoing projects which have been previously reported.

www.ccachiro.org

Ammendolia Bombardier Hogg-Johnson Glazier

“Views toward radiography use in acute low back pain among chiropractors in an Ontario community”. **Update:** published JMPT 2002 Oct;25(8):511-20.

ammendol@sympatico.ca

Ammendolia Bombardier Hogg-Johnson Glazier

“Implementing evidence-based guidelines for x-ray use in acute low back pain. A chiropractic community intervention. **Update:** accepted JMPT

ammendol@sympatico.ca

Ammendolia Bombardier Kerr and the Canadian Task Force on Preventive Health Care.

“The use of back belts for the prevention of occupational low back injuries”.

Update: submitted Can Med Ass J
ammendol@sympatico.ca

Biggs

“Professional Identities of Chiropractors”.

biggsc@duke.usask.ca

Bishop

The project entitled “Outcome evaluation of the management of lumbar disc protrusion causing sciatica” is a prospective cohort study. The primary question was, do patients with lumbar disc protrusions causing radiculopathy have a significant improvement in their disease-specific health-related quality of life (HRQOL) as assessed by the Neurogenic Symptom Scale of the North American Spine Society (NASS) Instrument at six months postoperatively? *Co-investigators include Fisher, Fairholm, Dvorak, Wing, Wright, and Robens-Paradise. Funded by the Regional Evaluation of Surgical Indications & Outcomes (RESIO) and presented at the North American Spine Society Meeting, October, 2001.*

Update: This project was part of a larger prospective observational study looking at several potential predictors of outcome from the surgical and non-surgical management of lumbar disc protrusion causing sciatica. This particular project involving HRQOL and the NASS instrument has been accepted for publication in Spine.

pbishop@vanhosp.bc.ca

Bishop

The project entitled “Implementation of clinical practice guidelines in Worker’s Compensation Board patients with acute

mechanical back pain: a prospective randomized trial” assessed the degree to which the patterns of practice of primary care physicians in managing the WCB patients are in compliance with current practice guidelines and also determined whether providing family physicians and their patients with the guidelines would alter the degree of adherence. *Co-investigators include Wing and Badii. Funded by the Worker’s Compensation Board of B.C.* **Update:** This study has concluded. The results were presented at the NASS Meeting in Montreal in October, 2002. The first paper from this study has been accepted for publication in The Spine Journal.
pbishop@vanhosp.bc.ca

Bishop NEW

The project entitled, “Prospective Randomised Double Blind Controlled Trial of Selective Nerve Root Blockade in Patients with Acute or Subacute Sciatica” is ongoing and will determine if SNRB with steroid is effective in improving functional status in this patient group. Secondary objectives include determining if SNRB is effective in improving quality of life or rates of progression to surgery. Additional objectives are to examine whether baseline characteristics such as duration of symptoms, findings on CT or MRI and initial response to injection can influence the final outcome or predict the response to SNRB. The design is a single centre, parallel design, prospective randomized, double blind, placebo-controlled trial. The primary outcome of interest is functional improvement in six weeks as defined by changes in modified Roland Disability scores from baseline. Co-principal investigators are Paul Bishop and Maziar Badii, MD, FRCP (Rheumatology).

Funding of \$262,000 by the Worker’s Compensation Board of B.C.
pbishop@vanhosp.bc.ca

Blouin Descarreaux

“Whiplash injuries: from stabilization mechanisms to sensorimotor deficits”.
jsblouin@kin.msp.ulaval.ca

Blouin Corbeil

“Influence of muscular fatigue on the postural control system”.
jsblouin@kin.msp.ulaval.ca

Blouin Descarreaux Simoneau

“Roles of vestibular and cervical proprioceptive signals for on-line space updating”
jsblouin@kin.msp.ulaval.ca

Corbeil Blouin Bégin Nougier Teasdale

“Perturbation of the postural control system induced by muscular fatigue” In this experiment, we induced muscular fatigue of ankle plantar-flexors to examine how it deteriorates the regulation of bipedal quiet upright standing. Postural stability was assessed in conditions with and without vision over 60 s period to examine not only classical postural variables (time- and frequency-domain analyses), but also structural variables (stabilogram-diffusion analysis). With muscular fatigue, subjects exhibited an increased postural sway (faster center of pressure (CP) velocity, and greater CP mean and median frequency) and a decreased long-term scaling exponent compared with the control conditions. These results suggest that fatigue did induce some changes in the control mode of postural stability, but the detection/action capabilities of the sensorimotor system remained partly efficient when the ankle plantar-flexors were fatigued.

Furthermore, the decreased long-term scaling exponent observed with fatigue suggests that the control of upright stance operates in a less stochastic and more antipersistent manner when fatigue is present (i.e. past and future behaviors were more negatively correlated and thus more tightly regulated). Altogether, the present results suggest that fatigue places higher demands on the postural control system by increasing the frequency of actions needed to regulate the upright stance. This study has been accepted for publication in *Gait & Posture* and is available online at <http://www.elsevier.com/locate/issn/09666362>

Boucher

The project entitled “transcranial magnetic stimulation” is an ongoing investigation and several publications coming out of this work have been accepted by JMPT and will be published very shortly. Dr. Jean Boucher PhD is a consortial network member and is based at the University of Quebec at Montreal. boucher.jean_p@uqam.ca

Boudreau McBride

“Chiropractic Services in the Canadian Military: a pilot project”. drlboudreau@yahoo.com

Busse Guyatt Bhandari Cassidy

“A 4-part series on a user’s guide to the chiropractic literature” **Update:** The first two articles in this series, discussing how to use an article about therapy, have been accepted for publication, and the first will appear in JMPT this summer. j.busse@utoronto.ca

Busse Bhandari, Guyatt, Morrow, Siddiqui, Leighton, and Schemitsch.

“A systematic overview and meta-analysis examining operative versus non-operative treatment of acute achilles tendon ruptures”. **Update:** published in *Clinical Orthopedics and Related Research* 2002;400:190-200. j.busse@utoronto.ca

Busse

Following the recent publication of a meta-analysis investigating the effect of low intensity, pulsed ultrasound on time to fracture healing (Busse JW, et al., *CMAJ*. 2002; 166: 437-441). **Update:** A pilot project grant has been completed and will be submitted to CIHR this summer. Six (6) North American university-based orthopaedic departments have agreed to recruit patients for the pilot project, and Smith & Nephew has agreed to provide \$400,000.⁰⁰ in ultrasound equipment to support both the pilot project and the definitive trial. Current co-investigators are Guyatt, Bhandari, Stephen, Mandel, Sanders, Heckman, Swiontkowski, and Schemitsch.

j.busse@utoronto.ca

Busse Kulkarni, Campbell, Injeyan

“A survey of Canadian chiropractic students examining attitudes towards vaccination” published in. *Canadian Medical Association Journal* 2002;166:1531-1534. **Update:** A subsequent paper that presents a critical analysis of common anti-vaccination arguments has been accepted for publication by JMPT. Campbell and Morgan were co-participants in this study.

j.busse@utoronto.ca

Busse Bhandari

“A database analysis to examine predictors of morbidity and mortality for

emergency trauma surgery”. **Update:** We reviewed records on all trauma patients, except those with moderate to severe burns, who presented to a University-affiliated level one trauma centre and underwent surgery, from 1995 until 2001 (n=1044). Factors predictive of increased mortality were higher Injury Severity Score (odds ratio [OR] 1.07; 95% confidence interval [CI] 1.03-1.08), older age (OR 1.04; 95% CI 1.03-1.07), operations involving the cardiovascular system (OR 1.67; 95% CI 1.09-2.57), and operative procedures coded as “miscellaneous” (OR 1.77; 95% CI 1.06-2.94). Time of presentation for emergency trauma surgery was not associated with differences in either major complications or mortality. Co-participants were Bhandari and Devereaux, and this study has been submitted for publication.

j.busse@utoronto.ca

Busse New

We conducted a two year prospective observational cohort study to evaluate health-related quality of life, using the SF-36 and a visual analogue pain scale, in thirty patients with unstable ankle fractures who were otherwise healthy. Smoking history, presence of a medial malleolar fracture and lower levels of education were significant predictors of lower physical function. Lower mental health domain scores were significantly associated with alcohol use and increasing age. Co-participants were Bhandari, Sprague, Hanson, Dawe, Moro, and Guyatt GH. This study has been submitted for publication.

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Busse New

There exists current debate as to the potential impact of industry funding on

research findings. We therefore examined whether there was an association between reported industry funding and authors’ conclusions among a consecutive sample of 332 randomized medical and surgical trials acquired from 13 leading journals. Our analysis, controlled for study quality and sample size, demonstrated an association between industry funding and the likelihood that a trial will have statistically significant pro-industry result (odds ratio [OR]=1.91 95% confidence interval [CI]=1.3-3.5). Co-participants were Bhandari, Jackowski, Montori, Schünemann, Sprague, Mears, Schemitsch, Heels-Ansdell, and Devereaux. This study has been submitted for publication. This study was awarded first prize at the McMaster Orthopaedics Research Day and will be presented by Dr. Busse at the 3rd joint meeting of the International Society for Clinical Biostatistics and the Society for Clinical Trials in London, UK, this July.

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Busse New

There is evidence to suggest that Whiplash Associated Disorders (WADs) are influenced by physical trauma and psychosocial factors, as well as by medicolegal and compensation systems. In this project, entitled “The Impact of non-Injury Related Factors on Disability Secondary to Whiplash Associated Disorder Type II: A Retrospective File Review”, we examined a consecutive sample of patients presenting to a single chiropractors office, with WAD type II, on disability, who had declared if they had retained a lawyer (n=33). Our analysis found that higher self-reported disability on initial assessment (NDI) was associated with female gender, and in particular by retaining a lawyer. Large

prospective studies are needed to establish the validity of these findings. Co-participants were Dufton, Kilian, and Bhandari, and this study has been submitted for publication.

j.busse@utoronto.ca

Busse New

This project, entitled: “Therapeutic Ultrasound and Fracture Healing: A Survey of Beliefs and Practices” examined the attitudes of 25 orthopaedic surgeons and 34 senior physiotherapy students at a single university. Thirty-two percent of surgeons felt that ultrasound was contraindicated and harmful to healing fractures or of no use, and 20.5% of senior physiotherapy students reported the belief that ultrasound was contraindicated and was, or may be, harmful to healing bone. Current usage of this modality is rare primarily due to the perceived lack of evidence and lack of availability. Large randomized trials are needed to further define the role of ultrasound on fracture healing. Bhandari was a co-participant, and this study has been submitted for publication.

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Busse New

This project, entitled “Influence of Authorship Order on Perceptions of Authors’ Contributions” sought to evaluate whether there is variability in the perception of authors’ contributions to research based upon authorship order among a group of experienced readers (Chairpersons in the departments of surgery and medicine at all 16 medical programs in Canada.). We found that in the absence of explicit reporting of authors’ roles in published research papers, there remains considerable variability regarding perceptions of each

author’s contribution. First and last authors of published reports are perceived to have greater roles. Co-participants were Bhandari, Kulkarni, Devereaux, Leece, and Guyatt GH. This study has been submitted for publication.

j.busse@utoronto.ca

Busse New

The validity of some exposure syndromes, such as multiple chemical sensitivity, attributed to the influence of toxic environmental chemicals, is uncertain. Diagnosis is subjective, and standard medical treatment often fails. Existing evidence suggests that in many individuals with these syndromes, psychosocial factors play a prominent role. In this project we present an approach to managing patients presenting with sensitivities to environmental agents that includes identifying and managing organic disease, obtaining a thorough biopsychosocial history, confirming a diagnosis, and developing a rehabilitative process that focuses on support and improvements in function. Co-participants were Reid, Leznoff, Barsky, and Guyatt. This study has been submitted for publication.

j.busse@utoronto.ca

Cassidy Haldeman, Nygren, Schubert, Carroll, Côté, Peloso, Hurwitz, Nordin, Bombardier, Maetzel, Salmi, Dvorak, Bogduk and Hogg-Johnson

“WHO Collaborating Center Task Force on Neck Pain and Its Associated Disorders”. dcassidy@ualberta.ca

Cassidy, Haldeman, Nygren, Schubert, Carroll, Côté, Peloso, Hurwitz, Hogg-Johnson, Nordin, van der Velde, Beaton, Bracher, Carragee, Grier, Johnson, Johnson, Bombardier, Maetzel, Salmi,

Dvorak, Morgenstern, Weinstein, Krahn and Bogduk.

Decade of the Bone and Joint 2000-2010 Task Force on Neck Pain and Its Associated Disorders: This is a best-evidence synthesis of the world literature on neck pain and its associated disorders and includes original research projects on complications of common treatments, a formal decision analysis, and an occupational cohort study. The task force will propose patient-care guidelines based on this work. Major funding comes from the CCPA, NCMIC and other sponsors.

dcassidy@ualberta.ca

Cassidy

“Clinical Prediction Rules in Whiplash-Associated Disorders”. This is a five-year program of research aimed at developing and validating clinical prediction rules for whiplash-related neck pain, low-back pain, temporomandibular disorders, headache and concussion after traffic collisions. Two population-based studies of traffic injuries in Saskatchewan will provide the training and test data sets. Funding is from the Alberta Heritage Foundation for Medical Research through a *Health Scholar Award* for Dr. Cassidy.

dcassidy@ualberta.ca

Cassidy, Carroll, Côté

“An Outcomes Assessment of Rehabilitation Program for Traffic Injuries in Saskatchewan”. This is a population-based assessment of a government funded rehabilitation network to treat traffic injuries. Funded by Saskatchewan Government Insurance.

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Cassidy, von Holst, Nygren, Carroll, Borg, Holm, Peloso, Kraus, Yates, Ericson, Coronado, Pépin, Schubert, and Paniak.

“WHO Collaborating Centre Task Force on Mild Traumatic Brain Injury”. This is a six-year initiative by an international task force to complete a best-evidence synthesis and original research on the topic of mild traumatic brain injury. The results of the task force will be presented at the 5th World Congress on Brain Injury in Stockholm in May 2003 and published later in 2003. Funding is from the Insurance Corporation of British Columbia, Saskatchewan Government Insurance, La Société de l'assurance automobile du Québec, AFA Insurance, Sweden; Folksam Insurance, Sweden; the Volvo Car Company, Sweden; and Trygg-Hansa, Sweden.

dcassidy@ualberta.ca

Côté, Johnson, Baldwin, Frank

“The Arizona State University Healthy Back Study: A study of the cost effectiveness of chiropractic versus medical care in returning injured workers with occupational low back pain to work”. **Update:** An abstract of this paper will be presented at Forum VI for Primary care Research on Low Back Pain on May 22-24, 2003 in Linköping, Sweden. Dr. Côté is Scientist at the Institute for Work and Health and an Assistant Professor of Public Health sciences at the University of Toronto.

pcote@iwh.on.ca

Côté

“The epidemiology and primary care utilisation for occupational neck pain in Ontario”. **Update:** The research team is now forming the cohort of injured workers from the WSIB database. Funding (\$139,950) is from the Ontario

Ministry of Health and Long Term Care/Ontario Chiropractic Association.
pcote@iwh.on.ca

Côté

”Is the choice of care provider associated with health outcomes after whiplash?: A study of whiplash in a cohort of traffic injury claimants in Saskatchewan”.

Update: This project is completed and the paper has been submitted for publication.

pcote@iwh.on.ca

Côté NEW

The project entitled "The Incidence and Course of Neck Pain in the General: A Population-based Cohort Study" is using data from the Saskatchewan Health and Back Pain Survey to describe the incidence and natural history of neck pain. This study uses data from 1131 Randomly selected adults from Saskatchewan who were followed-up for one year. Funding of the project was provided by the Chiropractors' Association of Saskatchewan and Saskatchewan Health. Co-investigators are Cassidy, Carroll and Kristman. An abstract of this study will be presented at the Canadian Society for Epidemiology and Biostatistics Biennial Meeting in Halifax, Nova Scotia, June 8-11, 2003.

A paper from the Saskatchewan Health and Back Pain Survey: Carroll L, Cassidy JD, Côté P. Factors associated with onset of an episode of depressive symptoms in the general population. 2003 is currently in press in the Journal of Clinical Epidemiology.

Crawford Dawson Tiidus Pierrynowski Trotter

“Evaluation of a Community-Based Exercise Program for Diminishing

Symptoms of Fibromyalgia”. Published in Physiotherapy Canada 2003;55(1):17-22.

Normand Descarreaux Black Poulin Richer Dugas

“Biomechanical effects of a lumbar support in a mattress. J Musculoskeletal Research (in press).

martin.descarreaux@kin.msp.ulaval.ca

Blouin Descarreaux Bélanger-Gravel Simoneau Teasdale

“Human neck muscles attenuation following imposed trunk forward acceleration. Experimental Brain Research (in press).

martin.descarreaux@kin.msp.ulaval.ca

Descarreaux Blouin Teasdale

“A non-invasive technique for measurement of segmental sagittal neck motion”. European Spine Journal (in press).

martin.descarreaux@kin.msp.ulaval.ca

Blouin Descarreaux Bélanger Simoneau Teasdale

“Self-initiating a seated perturbation modifies the neck postural responses”. Neuroscience Letters (in press).

martin.descarreaux@kin.msp.ulaval.ca

Blouin Bresciani Cantin Sarlégnna Blouin Descarreaux Gauthier

“Estimating gaze shifts through extraretinal, cervical and vestibular signals”. Experimental Brain Research (submitted).

martin.descarreaux@kin.msp.ulaval.ca

Descarreaux Blouin Teasdale

“Force production parameters in low back pain subjects and healthy control subjects”. Spine (submitted).

martin.descarreaux@kin.msp.ulaval.ca

Blouin Descarreaux Bélanger Simoneau Teasdale

“Contribution of reflex- and voluntarily-triggered neck postural responses for the stabilization of the head-neck system”. Experimental brain research (submitted). martin.descarreaux@kin.msp.ulaval.ca

Descarreaux Blouin Drolet Papadimitriou Teasdale

“Efficacy of preventive spinal manipulation for chronic low back pain and related disabilities. A preliminary study”. JMPT (submitted). martin.descarreaux@kin.msp.ulaval.ca

Dufton

The project “Profiling the health of long term disability claimants” aims to describe the rates of utilization for various health care services (chiropractic, medical, physiotherapy) among workers who have had a long term disability claim. Several provincial wide data sources are being linked to create a person-specific longitudinal database for this analysis. The co-investigator for this project is Mieke Koehoorn PhD from the University of British Columbia. jdufton@interchange.ubc.ca

Dufton

The project “Delayed recovery and chronic disability associated with whiplash associated disorders” is a masters thesis project. This study will examine clinical and non-clinical factors associated with delayed recovery after a motor vehicle collision. The research committee for this project consists of Jacek Kopec MD PhD, Mieke Koehoorn PhD, Hubert Wong PhD, all from the University of British Columbia, and

David Cassidy DC, PhD from the University of Alberta.

Dr. Dufton is a Masters Candidate funded by the *Michael Smith Foundation for Health Research Trainee Award*, a 2 year award at the University of British Columbia, Faculty of Medicine, Department of Health Care and Epidemiology. jdufton@interchange.ubc.ca

Erwin

The project entitled "Is the notochord cell the key to intervertebral disc homeostasis?" concerns particular aspects of the physiology of the intervertebral disc. The project developed from the observation that certain species of dog do not develop degenerative disc disease whereas others do develop the disease and do so at an early age. The essential link in this observation is that the animals that do not develop degenerative disc disease maintain their resident notochord cells within the nucleus pulposus of the intervertebral disc. The animals that are prone to the disease (such as is the case with humans) lose these cells early in their life. The intervertebral disc nucleus pulposus originally contains two types of cells; chondrocytes and notochord cells. Dr. Erwin has determined that the notochord cells produce soluble proteins that seem to target the proteoglycan synthesizing machinery of the chondrocytes and do so across species in a dose dependent fashion. Dr. Erwin is presently characterizing the specific nature and identity of the proteins produced by the notochord cells and examining specific genes that are ‘turned on’ in cellular signaling events downstream. Dr. Erwin is the recipient

of Canada's 2nd university-based Chiropractic Research Chair and he currently carries out his research at the Toronto Western Hospital.
mark.erwin@utoronto.ca

Hains Goulet Rossignol

The project "Clinical examination and diagnosis of chronic musculoskeletal neck pain: an inter-rater reliability study" evaluated the clinician's ability to reliably identify musculoskeletal signs and to reliably diagnose neck pain conditions based on clinical findings. The interrater reliability of chiropractic and medical judgements was also compared. Two physicians and two chiropractors served as examiners. After reviewing a history form filled out by each subject, they evaluated in random order, a sample of chronic neck pain sufferers. The examination included the assessment of (1) cervical ranges of motion (ROM), (2) muscle tenderness and spasm, (3) facet joint tenderness and (4) segmental motion dysfunctions. Based on these findings, the examiners identified the presence or absence of four related musculoskeletal signs and they provided a final diagnosis, using the Whiplash Associated Disorder classification, of grade 1 or 2 WAD. Thirty-nine adults participated in this study. No association was noted between pain intensity and presence of musculoskeletal signs or diagnosis of grade 2 WAD. The inter-rater reliability of each sign and the final diagnosis was poor (ICC < 0.31). The clinical disagreement was similar between chiropractic and medical examiners. Clinicians could not reliably identify musculoskeletal signs and diagnose grade 1 and 2 WAD. The definition of each sign should be refined. It appears justify clustering grade 1 and 2 WAD into a single category until clinicians can

reliably distinguish between the two. The WAD classification should also take into account the evaluation of psychosocial factors related to the development of chronic neck pain.

Hayden van Tulder

"Exercise therapy for treatment of adult non-specific low back pain".

jhayden@iwh.on.ca

Hayden Tomlinson

"Use of bayesian statistics in meta-analysis of heterogeneous studies: a methodology review and example".

jhayden@iwh.on.ca

Hayden Bombardier, Beaton, Hogg-Johnson

"Measurement properties and feasibility of patient-report outcome measures in claim-based musculoskeletal rehabilitation practice".

jhayden@iwh.on.ca

Hayden Mior Verhoef

"Evaluation of chiropractic management of pediatric low back pain patients: A prospective cohort study". published JMPT 2003; 26 (1):1-8.

jhayden@iwh.on.ca

Hayden Bombardier, Beaton, Hogg-Johnson

"Development of a framework to identify clinically useful predictive factors for low back pain".

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***Hayden* NEW**

The project "Descriptive analysis of quality criteria used in systematic reviews of prognostic studies", examines how primary study quality has been assessed in published systematic reviews of prognosis. Published articles were

identified in Medline (1966 to March 2003) and reference lists of retrieved and other relevant articles. A total of 738 articles were identified. Titles and abstracts were screened for inclusion/exclusion criteria; 120 articles were reviewed in full. Included were systematic reviews of prognosis, which included quality assessment of the primary studies. Seventy-two reviews were included; there was wide variation in quality assessment. Analysis includes use of expert consensus to compile distinct, explicit descriptions of items, summarizing endorsement rates of items, and summarizing empirical evidence on the impact of quality items. This review will help develop much needed recommendations for quality assessment in observational studies.

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Herzog Symons

“Immediate effects of SMT on VA histology”. walter@kin.ucalgary.ca

Herzog Suter McMorland

“Reflex responses following spinal manipulative treatments”.

walter@kin.ucalgary.ca

Herzog Drover

“Muscle inhibition in competitive athletes with thigh muscle injury”.

walter@kin.ucalgary.ca

Herzog Symons

“Vertebral Artery mechanics during neck manipulative treatments”.

walter@kin.ucalgary.ca

Herzog Forand Drover Symons

“Forces exerted by female and male chiropractors during Thoracic Spinal Manipulation”.

walter@kin.ucalgary.ca

Kawchuk Oliphant

‘Identification of Induced Annular Tears Using Diffusion-Weighted MRI in a Porcine Model’.

dr-o-chiro@shaw.ca

Kawchuk Fauvel

Development of a Non-invasive Ultrasonic Technique Capable of Quantifying Vertebral Load-displacement Responses into a Clinically Relevant Instrument.

kawchuk@ucalgary.ca

Kawchuk

“Ultrasonic Quantification of Spinal Displacements”.

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Kawchuk

“Identification of Intervertebral Disc Injury with Diffusion Magnetic Resonance Imaging”.

kawchuk@ucalgary.ca

Kawchuk

“Development of an Animal Model of Vertebral Artery Injury”.

kawchuk@ucalgary.ca

Kawchuk Smith

“Effect of nucleus pulposus digestion on the mechanical properties of the intervertebral disc during static compressive loading”.

kawchuk@ucalgary.ca

Kawchuk Perle

“Radiographically determined anatomical location of the point of peak pressure during pisiform and hypothenar contact manipulation procedures”.

kawchuk@ucalgary.ca

Lawson

The project “Use of the Multifacet Rasch Model to Adjust for the Error Variance Due to the Examiner Stringency/Leniency Effects in OSCEs” examines the decisions regarding candidate competency / incompetency (pass/fail) for professional certification from “high stakes” Objective Structured Clinical Skills Examinations (OSCEs) which should be both reliable and valid. Thus, it is necessary to ensure that the scores contain minimal error variance including that due to judge stringency/leniency effects. Although judge variance has been found to be extensive in oral examinations, no studies have been done with OSCEs. OSCE scores are believed to contain insignificant amounts of error variance because of the use of structured checklists, standardized patients, and trained judges. Investigations on the use of dual judges at the same OSCE station have found high inter-rater correlations. However, this does not guarantee that candidate scores will not be inappropriately biased by judge stringency/leniency effects. The purpose of this study was to determine if the multifaceted Rasch model (MFRM) of Item Response Theory (IRT) could be used to identify the presence and amount of error variance due to judge stringency/leniency effects. In addition, the Classical Test Theory (CCT) and MFRM were compared to determine which provided overall better analyses of candidate performance.

CCT provided some evidence of a judge stringent/leniency effect but IRT provided clear evidence of a large amount of error variance due to judge stringency/leniency effects. In fact, for approximately 6% of the candidates near

the pass/fail score, outcomes were changed. The IRT method was deemed to be more informative since it dealt with the issues of unidimensionality and fit of data to model. No comparable data to model fit is necessary when using CCT. Although both methods of analysis require a high level of expertise to ensure appropriate analysis, IRT provided far more useful information about the characteristics of the facets, plus it estimated candidate “true” scores by adjusting for judge stringency/leniency effects. The findings of this study should encourage others licensing bodies that use OSCEs with approximately 50 – 750 candidates to explore the potentials of analyzing their data using the multifaceted Rasch model.

drlawson@cceb.ca

Marcotte Normand Black

“Investigating the kinematics and kinetics of standardized motion palpation”.

Justin_Marcotte@uqtr.quebec.ca

McMorland Suter Verhoef Hurlbert

“Randomized, controlled, double-blinded study which will investigate whether chiropractic care for patients suffering low back pain and leg pain secondary to lumbar herniated disc will improve patient outcome and reduce treatment costs compared to back surgery”. gcmorland@telusplanet.net

McMorland Suter

“Alterations in muscle activation during the gait cycle in patients with pelvic or lower extremity injury”.

gcmorland@telusplanet.net

McMorland Suter

“Alterations in kinematics of the upper extremities, shoulder girdle, pelvis, and lower extremities in patients with pelvic or lower extremity injury”.

gmmorland@telusplanet.net

McMorland Suter

“Decrease in elbow flexor inhibition after cervical spine manipulation in patients with chronic Whiplash Associated Disorder”. **Update:**

published Clin Biomech 2002;17:541-544. gmmorland@telusplanet.net

McMorland Injeyan Russell Verhoef

“Response rates for chiropractic surveys”. **Update:** JMPT (in press).

gmmorland@telusplanet.net

Mercado

“Coping behavior in people dealing with the chronic pain experience”.

annie653@hotmail.com

Muir

The project: “The Effects of Ipriflavone and Curcumin on Bone” is a pilot study, to determine the effects of ipriflavone and curcumin on bone. There is currently conflicting evidence as to the effectiveness of ipriflavone at limiting post-menopausal bone loss and only preliminary evidence suggesting curcumin positively affects bone mass. No studies exist evaluating the combined effects of these compounds nor their efficacy versus conventional treatments. Ovariectomized mice will be administered the compounds ipriflavone and/or curcumin, either alone or in combination, and their effects compared using the following outcome measures: histomorphometric analysis, biochemical markers of bone turnover, dual-photon (DPA) and dual x-ray (DXA)

absorptiometry-measured BMD, peripheral quantitative computed tomography (pQCT), magnetic resonance (MR) imaging and tensile strength. Subsequently, we hope to determine dose-dependency and time-course characteristics, efficacy versus pharmaceutical interventions such as hormone replacement therapy (HRT) and bisphosphonates, and the effect of additional supplementation with vitamin D, calcium, varying physical activity, etc. The use of histomorphometry, marker assays, BMD and pQCT/MR imaging to evaluate the combined and comparative effects of ipriflavone and curcumin marks the first time that their effects have been evaluated in this way.

Dr. Jeffrey M. Muir, MSc, DC is a Research Fellow, Department of Nuclear Medicine, McMaster University, funded with a CIHR Fellowship. His Co-investigators are Colin Webber, PhD and J.D. (Rick) Adachi, MD.

muirj@interlynx.net

Pitcher

"Rates of Neuromuscular fatigue and repeatability of measurements of EMG and force using a prone isometric lumbar extension exercise".

mpitcher@avint.net

Quon

The project “The effect of the timing of surgery on postoperative pain, quality of life and work outcomes in patients with lumbar disc herniation (LDH)” is a thesis project. The study population will consist of lumbar disc patients treated surgically through the Combined Neurosurgical and Orthopaedic Spine Program at Vancouver General Hospital in Vancouver. The study will attempt to identify the optimum timing of surgery

(in terms of preoperative symptom duration) and will also determine how, or whether, postoperative outcomes are modified by compensation status. Additionally, health services utilization information on all subjects will be acquired by way of administrative data, accessed through the BC Linked Health Data Base. Dr. Quon is a CIHR Fellowship recipient and a PhD candidate.

quon@interchange.ubc.ca

Quon

The project “A descriptive study of the prevalence of low back pain among Nepalese porters” is nearing completion. Co-investigator Steven Fedder, M.D., is a former volunteer physician for the Himalayan Rescue Association Medical Clinic in Nepal.

quon@interchange.ubc.ca

Quon

The project “A descriptive study of emergency department patients' attitudes toward complementary medicine, and their willingness to participate in complementary and alternative medicine research was funded by the Vancouver Hospital Health Sciences Centre and the BC Health Research Foundation. The co-investigator R. Abu-Laban, M.D., is Research Director, Department of Emergency Medicine, Vancouver General Hospital. The results of this study were recently published in the Canadian Journal of Emergency Medicine (CJEM 2002;4:407-7).

quon@interchange.ubc.ca

Quon

The project “The Reliability and Responsiveness of Occupational Role Functioning Measures” is a validation study of two relatively new instruments

that were developed to capture the impact of health on an individual's ability to perform his/her role in the workplace. The Occupational Role Questionnaire is a both a condition specific, role specific measure intended to assess the impact of *back pain* on paid work performance. The Work Limitations Questionnaire is a generic, role specific measure intended to capture the impact of *general health* on work performance. The primary objective of this study is to examine the psychometric properties of each of these measures within a population of surgical lumbar disc patients. Other objectives are to compare changes in these measures against changes in traditional return-to-work measures, and to determine how well these different occupational role functioning measures correlate with changes in other generic and condition-specific quality of life measures.

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van der Velde **NEW**

The project “**Non-surgical treatments for neck-shoulder pain in working populations.**” is a systematic literature review conducted within the framework of the Cochrane Collaboration Back Review Group. It will identify and summarize the available evidence on the effectiveness of various non-surgical treatments for neck-shoulder pain in working populations, including active exercise, drugs, and manual therapies.

Co-investigators: van Tulder M, Côté P, Aker P, Hogg-Johnson S.

gabrielle.vandervelde@utoronto.ca

van der Velde **NEW**

The project “**Utilities for health states associated with neck pain and common non-surgical treatments.**”

will directly measure health state preferences (utilities) from samples patients in Los Angeles and Toronto presenting to physicians, physical therapists and chiropractors for whiplash / non-specific neck pain. A utility is a quantitative measure of the strength of an individual's preference for a treatment outcome expressed on a scale from 0-1. Utilities are required in the economic evaluation of health treatments and decision analytic models.

Co-investigators: Krahn M, Maetzel A, Hurwitz E, Hogg-Johnson S, Llewellyn-Thomas H, Naglie G.

gabrielle.vandervelde@utoronto.ca

van der Velde **NEW**

The project **Decision analysis of non-surgical treatments for non-specific neck pain and acute whiplash.** will provide a comprehensive overview of the benefits and risks of neck pain treatments that incorporates patient-based preferences for outcomes to treatment. The primary aim of this analysis is to assist clinical decision making and policy decisions by synthesizing the existing evidence in a decision analytic model that includes the relevant outcomes associated with each treatment. Co-investigators: Krahn M, Maetzel A, Hogg-Johnson S, Hurwitz E, Llewellyn-Thomas H, Cassidy JD.

gabrielle.vandervelde@utoronto.ca

van der Velde **NEW**

The project **'Neck pain patients' preferences for common non-surgical treatments.** will quantify the strength of preference for specific treatment alternatives among neck pain sufferers using the probability trade-off technique. Patients are presented with descriptive and probabilistic information about the treatment protocols, and potential

benefits and risks associated with 3-4 treatment alternatives. The probabilistic information (ie. probability of benefit, risk, side effects) is changed incrementally until the patient switches to another treatment. This 'switch point' indicates the patients' strength of preference for a specific intervention. This technique assessed individuals' strength of preferences for, for example, treatment A relative to treatment B within the confines of a particular clinical context.

Co-investigators: Llewellyn-Thomas H, Hurwitz E, Maetzel A, Krahn M.

gabrielle.vandervelde@utoronto.ca

van der Velde **NEW**

The project **"Measuring change in neck-pain related disability in acute whiplash patients responding to treatment: does the Neck Disability Index possess the appropriate measurement properties?"** will evaluate the NDI's measurement properties and determine whether it can appropriately be used to evaluate change in neck-pain related disability in patients responding to treatment. A systematic literature review will be conducted to identify studies which have investigated the NDI's measurement properties. The NDI will then be critically appraised on its reliability, validity (content, construct, criterion, face), responsiveness, interpretability and feasibility.

gabrielle.vandervelde@utoronto.ca

Vernon Jansz McDermaid Goldsmith

"Randomized clinical trial comparing chiropractic and medical treatments for tension headache". hvernon@cmcc.ca

As our chiropractic research culture grows and flourishes, so too does the quantity and quality of chiropractic research – all to the benefit of our patients and Canadians at large.

We now need to integrate our new chiropractic knowledge into the health care system. Our chiropractic evidence is becoming more important and critical to effective health policy development and health planning.

CONSORTIAL NETWORK PROJECTS

Project title:

Quantification of Mechanical Low Back Pain.

Consortial members:

Dr. Greg Kawchuk DC, PhD
University of Calgary
Dr. Jim Dickey PhD
University of Guelph

Description:

Mechanical low back pain (mLBP) is a clinical diagnosis made when spinal pain is produced by benign mechanical stimuli in the absence of an identifiable etiology. Despite the frequency of this diagnosis, identification of the tissues and mechanics associated with mLBP have remained elusive due to problematic investigative techniques. These include the inability to quantify tissue mechanics directly, restriction from use in large populations, unreliable tissue loading conditions and failure to quantify pain responses during the mechanical test itself. Given that most studies have utilized one of these problematic techniques, it is unlikely that the following research question has

been answered accurately: is 'mechanical' back pain truly mechanical in nature. Therefore, the primary goal of this study is to determine if the mechanical behaviours of specific spinal tissues are related to pain intensity and if this relation changes over the clinical history of mLBP. To achieve this goal, a non-invasive technique (ultrasonic indentation, UI) will be used to quantify the mechanical responses of lumbar vertebra and their overlaying soft tissues during controlled indentation loads. Specifically, UI will be modified for clinical use and performed prospectively in the treatment sessions of a mLBP outpatient population (n=170). During UI, changes in pain intensity will be recorded continuously by a patient-held plunger and correlated to continual measures of vertebral displacement, soft tissue compression and spinal stiffness. It is expected that clinically significant correlations of pain and tissue mechanics will exist and these correlations will change with the resolution of the complaint. This study will be the first to examine a large population of mLBP patients using direct measures of tissue mechanics and will provide long overdue data regarding the validity of mLBP as a diagnosis.

Funding:

2002-2004 Ontario Chiropractic Association, Ministry of Health of Long Term Care.

Kawchuk - Principal Investigator

Dickey - Co-investigator

Operating Funds \$31,400 Total

Project Title:

The Bone and Joint Decade 2000 B 2010

Task Force On Neck Pain & Its Associated Disorders

Consortial members:

Dr. David Cassidy DC, PhD
University of Alberta
Dr. Pierre Côté DC, PhD
University of Toronto

Introduction:

Neck pain is a common source of pain and disability in the industrialized world. Although several treatments are available for the treatment of neck pain, there is a lack of consensus about the relative effectiveness of most interventions. This project, started in 2000, includes a suite of studies, designed to answer different research questions.

Project Status:

Literature review underway; other studies under development and will start in 2003.

Objectives:

To conduct a systematic literature review on the epidemiology, diagnosis, treatment (benefit and harm) and prognosis of neck pain.

To determine the risks of stroke associated with manipulation and the risks of gastrointestinal events associated with non-steroidal anti-inflammatory medication.

To conduct a decision analysis study of patient preference with regard to the most common treatment for neck pain.

To develop clinical guidelines for the treatment of neck pain.

Potential Audiences and Significance:

The Task Force will synthesize and produce new knowledge that will be relevant to patients, clinicians, researchers, insurers and policy makers.

The guidelines will inform all stakeholders about the best current practice for the treatment of neck pain and the research community about research priority.

Stakeholder Involvement in Project Development:

Clinicians (physicians, chiropractors, physiotherapists, psychologists), Researchers (epidemiologists, clinical epidemiologists, biostatisticians)

Researchers:

J.D. Cassidy (Alberta Centre for Injury Control and Research, Department of Public Health Sciences, University of Alberta), Pierre Côté (Institute for Work & Health), Sheilah Hogg-Johnson (Institute for Work & Health), Claire Bombardier (Institute for Work & Health), Dorcas Beaton (Institute for Work & Health), Gabrielle van der Velde (Institute for Work & Health), L. Carroll (Alberta Centre for Injury Control and Research, Department of Public Health Sciences, University of Alberta), S. Haldeman (President, Scientific Secretariat), E. Hurwitz (University of California, Los Angeles), P. Peloso (University of Iowa), Å. Nygren (Karolinska Institute).

Total Project Funding:

\$ 2,800,000 NCMIC, CCPA and other sources

Project Title:

Is The Choice of Care Provider Associated With Health Outcomes After Whiplash?: A Study of Whiplash in a Cohort of Traffic Injury Claimants in Saskatchewan

Consortial members:

Dr. Pierre Côté DC, PhD

University of Toronto

Dr. David Cassidy DC, PhD

University of Alberta

Introduction:

Whiplash is a common source of pain and disability that places an increasing burden on Canadian society and the health care system. Patients suffering from whiplash receive a variety of treatments from various health care providers; however, we do not know which configuration of care providers promotes early recovery.

Objective:

To update the systematic review published by the Quebec Task Force on Whiplash-Associated-Disorders, and to propose a conceptual framework to conduct systematic reviews on the prognosis of whiplash.

To determine if neck pain intensity, physical functioning and depressive symptoms are associated with time-to-claim-closure after whiplash and to determine if the strength of association varies with insurance systems.

To determine whether a specific configuration of health care practitioners available to patients with acute whiplash (mainly medical doctor, mainly chiropractor or combined care) is associated with shorter time-to-claim closure.

Methods:

A historical population-based cohort design has been selected. The data will be obtained by linking data from three sources: 1) the Population-based Inception Cohort Study of Traffic Injury in Saskatchewan; 2) the Saskatchewan

Government Insurance Company (SGI) claimant database; and 3) Saskatchewan Health Care Utilization databases.

Potential Audiences and Significance:

This study will provide high quality evidence regarding the most appropriate type of care for patients with whiplash injuries. For insurers and workers' compensation boards, the findings will guide policy decisions regarding the allocation of the most appropriate care for individuals with neck injuries. The results will clinically inform clinicians with a useful guideline to map the expected outcomes and time to recovery for various treatments. Governments will have a description of the health-care utilization for one of the most costly compensated injuries in Canada.

Researchers:

Pierre Côté (Institute Coordinator, PhD thesis), Claire Bombardier, JD Cassidy (Alberta Centre for Injury Control and Research, Department of Public Health Sciences, University of Alberta) L Carroll (Alberta Centre for Injury Control and Research, Department of Public Health Sciences, University of Alberta), John Frank (University of Toronto, Institute for Work & Health, University of California, Berkeley), Sheilah Hogg-Johnson

External Funding:

Health Canada, through National Health Research and Development Program (NHRDP) PhD fellowship to Pierre Côté; \$72,000/1997-2001.

Health Canada, through NHRDP grant, \$107,270; 1998-2001.

JOURNAL OF THE CANADIAN CHIROPRACTIC ASSOCIATION

The JCCA is delighted to announce that five new members have joined the Editorial Board:

Dr. Claire Johnson DC, MEd, DACBSP from Palmer College of Chiropractic West and University of Southern California,

Dr. Bart Green DC, MEd, DACBSP from Palmer College of Chiropractic West and University of Southern California,

Dr. Brian Gleberzon DC from CMCC

Dr. Paul Bishop DC, MD, PhD from the University of British Columbia and Vancouver General Hospital, and

Dr. Jill Hayden DC from the University of Toronto.

Congratulations are also extended to Dr. Pierre Côté DC, PhD from the University of Toronto who has become an *Assistant Editor* at the JCCA.

The JCCA gratefully acknowledges the following doctors who have served in the capacity of Editorial Board member and completed their terms, and thanks them for their service to the scholarly literature: Dr. Wilbur Kelsick, Dr. Hartley Bressler, Dr. Kim Humphreys, Dr. Toffy Kobrossi, and Dr. Stephen Burns.

FUNDED GRADUATE POSITIONS AVAILABLE

If you are a chiropractor and interested in pursuing graduate studies in a masters or PhD program, please contact Dr. Greg Kawchuk at the University of Calgary.
kawchuk@ucalgary.ca

ALBERTA PROVINCIAL CIHR TRAINING PROGRAM IN BONE AND JOINT HEALTH

This is a CIHR funded specialized program between the University of Alberta and the University of Calgary. It is a unique opportunity for training and research as a clinician/scientist in bone and joint health. Chiropractors who are PhD students are eligible and Dr. David Cassidy is a mentor for the Bone & Joint Program in Alberta. If you are interested contact him (below) for further information. Here is the link to their site.
<http://www.boneandjoint-training.ca/index.html>

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UPCOMING CONFERENCES/EVENTS

- June 14
Fondation chiropratique du Quebec
golf tournament for chiropractic
research.
- June 28
Calgary Chiropractic Society and
Rodin Law Firm golf tournament
- July 6
Edmonton Chiropractic Society Run
for Chiropractic Research
- July 12/13
Movement, Stability and Low Back
Pain: a holistic approach. Dr. Andry
Vleeming PhD, chair –
Interdisciplinary World Congress on
Low Back Pain and Pelvic Pain.
Founder and Director Spine and
Joint Center, Rotterdam, The
Netherlands. Contact Dr. Mike
Carstensen or Dr. Mark Pitcher 709-
738-7800 or docmike@thezone.net
- September 13-14
PEI is hosting the Atlantic
Chiropractic Convention. Dr. Stu
McGill is keynote on Evidence-
based management of spinal
problems.
- November 21/22
3rd Biennial Canadian Cochrane
Symposium on the theme of
Knowledge Translation in Hamilton,
Ontario. Check out their website at
www.cochrane.org

SUMMARY

As Committee Chair, I would like to acknowledge the dedication that both The CCA and the Canadian Chiropractic Research Foundation have made first to Canadians, and also very importantly to chiropractic research, and to our chiropractic researchers. Both of these organizations have undertaken very serious roles in the development of Canada's outstanding world class chiropractic researchers. They have raised the profile of chiropractic to new heights in Canada and fostered growing positive relationships with both the government and the public.

The CCA mission of improving the health and quality of life for Canadians through chiropractic research will successfully lead to The CCA's vision of every Canadian enjoying the benefits of full and equitable access to chiropractic care.

To date, The CCA has been very successful in fostering a *chiropractic research culture* in Canada, in developing a credible Research Agenda, in disseminating chiropractic research, in facilitating university-based Chiropractic Research Chairs across Canada, and in building strong relationships with CIHR.

A national community of fulltime research scholars in chiropractic will ensure that Canadians will come to receive the benefits that chiropractic care brings. In order for chiropractic to become fully integrated into our national health care system our discipline must first be entrenched within the university system and we are making great strides. Continuing to build intellectual capacity,

establishing university-based research chairs, integrating our chiropractic knowledge, providing for fulltime chiropractic research careers - these are the keys to our continued success.

The Board of Governors of The CCA are to be congratulated for their exemplary commitment. For further information contact Dr. Allan Gotlib, CCA Director, Research Programs at tel: 416-781-5656, fax: 416-781-0923, email: algotlib@ccachiro.org

This Bulletin is distributed to the Canadian chiropractic research community. (30/05/03) You may view the preceding seven bulletins on the CCA website at www.ccachiro.org

**HELP
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RESEARCH FOUNDATION**

**Contact Dr. Allan Gotlib DC
Assistant Secretary CCRF
Tel: 416-781-5656
Fax: 416-781-0923
Email: algotlib@ccachiro.org**

4th CANADIAN CHIROPRACTIC SCIENTIFIC SYMPOSIUM

Hosted by the Consortium of Canadian Chiropractic Research Centres

University of Alberta , University of British Columbia, University of Calgary, Université du Québec à Trois-Rivières (UQTR), Université du Québec à Montréal (UQAM), Institute for Work and Health (Toronto), Canadian Memorial Chiropractic College (CMCC), University of Toronto, University of Guelph, Laval Université and the College of Chiropractic Sciences.

Date: TBA

Place: TBA

Symposium convenor: Dr. Jean Boucher PhD

CALL FOR ABSTRACTS WILL BE SENT OUT IN THE COMING MONTHS

Contact: Dr. Jean Boucher PhD or Dr. Allan Gotlib DC

Email:

Sponsored by The Canadian Chiropractic Association

Consortium of Canadian Chiropractic Research Centers(CCCRC)

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