

CARL

Chiropractic Academy of Research Leadership

NEWSLETTER

Issue 3 -July 2018

<https://www.carlresearchfellows.org/>

CARL in Edmonton!

by Martha Funabashi

It has been a little over a year since the CARL Program started, in April 2017 with the first residential at the University of Southern Denmark, Odense. And a few months ago, in April 2018 the CARL fellows met again during the second residential, hosted at the University of Alberta, Edmonton.

Although it was only the second time we all met in person, the feeling is unanimous – it feels like we have known and worked with each other for years and years. It could be because we are all “in the same boat”, facing similar challenges on both professional and personal lives. However, regardless of the reason why the CARL fellows blended so well, the second residential proved that the CARL program has already been moving the international chiropractic research and leadership scene forward. Now, with 4 more papers accepted for publications and 4 more under review, the CARL fellows have produced a total of 11 manuscripts in 14 months. And that is on top of what our individual production – Fantastic job, fellows!

I think I can speak for all CARL fellows when I say that the second residential was fantastic! Not only we met in person and moved projects forward through face-to-face discussion, but also had some amazing and inspirational talks with fabulous presenters who shared their experiences, professional paths and expertise,

that inspired us to work even harder.

Further to our leadership mandate, this year we piloted a format to share the concept of CARL with others—“Breakfast with CARL”. This consisted of a morning session that brought together leaders and educators from several different areas (e.g., rehabilitation, engineering, student counselling, career advisory, banking, etc.) to meet the CARL fellows, to share breakfast, learn about CARL and to engage with two legendary local leaders. It was eye-opening to realize how much all these people with diverse backgrounds and working in distinct areas have in common when their goal is the same: to support early career leaders. Making this an even better event, there were two very distinct talks on leadership – one from Dr. Margaret-Ann Armour, one of Canada’s greatest champions of women in science and another from Dave Mowat, President and CEO of ATB financial. Personally, I have to admit that I was a little skeptical at the beginning and wondered how I would be able to apply what they were going to talk about. But, I was completely wrong and felt overwhelmingly inspired by both talks. It was really amazing to learn about not only the strategies these amazing leaders use to inspire, motivate and support people around them, but also their experiences being mentored and how their leadership skills were developed.



CARL Fellows and mentors at the Edmonton residential

Highlights

- * **Four** more CARL publications accepted:
 1. Pagé, Swain, Wong, Breen, De Carvalho, Funabashi, Kawchuk. *Journal of Manipulative and Physiological Therapeutics*.
 2. Adams, de Luca, Swain, Funabashi, Wong, Pagé. *Australian Journal of Rural Health*.
 3. Adams, de Luca, Swain. *Complementary Therapies in Medicine*.
 4. Moore, Adams. *Chiropractic Journal of Australia*.
- * **Four** more CARL publications have been submitted for publication and are currently under review.
- * **Five** more abstracts are going to be presented in five conferences in 2018.
- * CARL fellow **Isabelle Pagé** received the 2018 young investigator award from the Canadian Chiropractic Association!

From young leaders not in a leadership role, to successful early-career researchers, to leadership educators, to a corporate CEO, the second CARL residential covered relevant and very important topics in a new and interactive way, providing the CARL fellows with opportunities for interesting discussions and hands-on learning experiences. It was an incredible residential bringing the CARL fellows even closer, turning us into a CARL family.

To close this amazing week, the CARL family left Edmonton at 4am on Friday, April 27 heading to the Research Day at the Canadian Chiropractic Association's 2018 National Convention, in Calgary. It started very early, but what a productive day that Friday was! With 6 great presentations given by the CARL fellows, 4 fabu-

lous ChiroTalk presentations from each of our mentors and CARL fellow Diana who also facilitated a working lunch exploring potential avenues to better encourage and support women in chiropractic research, the CARL family showed how much potential it has to advance chiropractic research in the near future and beyond.

The second residential was incredibly inspiring. Meeting all CARL fellows and mentors again was even more inspiring. But what I am really excited about is to see all the high-quality and impactful research this family will develop together over the next year. Stay tuned!

-Martha

Donors and Funders



ECCRE

European Centre for Chiropractic Research Excellence

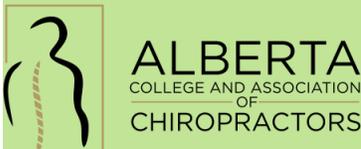


WORLD FEDERATION OF CHIROPRACTIC

Association chiropratique canadienne



Canadian Chiropractic Association



Mentor's Note by Greg Kawchuk, Jan Hartvigsen and Jon Adams

CARL is now 2 years old!

As you might have heard, the Chiropractic Academy for Research Leadership (CARL) held its second annual residential in Edmonton at the University of Alberta this last April. Attended by all 13 Fellows and three Principals, the beautiful City Room of the Peter Lougheed Leadership College was our venue providing a stunning view of the river valley for the duration of the 5-day program. Following the anticipation of the inaugural residential in Denmark last year, the Fellows were excited to catch up and to take the rare opportunity to work in person on existing projects and new collaborations. The residential week also involved intense team building activities that spanned the day, night and then some.

In addition to their project work and team building, the Fellows were fortunate to hear of the experiences and valuable insights from a number of notable eminent guests including Patrick Pilarski of Google Deepmind, Paul Taylor from the UAlberta School of Business., Martin Ferguson-Pell, Jane Grant and Tom Yonge from the Peter Lougheed Leadership College and Strathcona High School respectively.

The Edmonton residential also saw the introduction of a new event to the CARL program—Breakfast with CARL - where the Fellows, Principals and guests from the larger Edmonton community interacted with Order of Canada recipient and champion of women in science, Margaret Amour and CEO of Alberta Treasury Branch, Dave Mowat to discuss how to

nurture talent, leadership and mentorship across both academia and industry.

By the end of the residential, our 13 Fellows tallied some very impressive accomplishments: 5 papers published or in review, over 50 research projects identified for continuation, 15 leadership projects complete and more than 10 other leadership projects identified. Added to this was the more than \$50 thousand dollars raised through our sponsors who we are so proud to have supporting this important initiative.

Now that the Edmonton Residential has produced such great experiences, insights and outputs, planning has already begun for the next residential in Berlin which will occur in advance of EPIC 2019, the joint meeting between the World Federation of Chiropractic and the European Chiropractor's Union.

The 2019 Berlin event, as well as the final CARL meeting in Australia (2020) are not completely funded and we welcome your organization's financial support. As you know, the CARL program is developing the profession's next generation of leaders and it is our hope not only to complete the current program, but start a second CARL cohort as soon as possible. If you would like information about donating to CARL, any of the three principals would be excited to speak with you (greg.kawchuk@ualberta.ca, jhartvigsen@health.sdu.dk, jon.adams@uts.edu.au).

See you in Germany!

Highlights from CARL fellows



Alex Breen

A definite highlight of this year so far was having the opportunity to visit the Walter Reed National Military Medical Centre in Washington DC in January. The purpose of this trip, funded by a Travelling Fellowship awarded by the UK Society for Back Pain Research, was to present an overview of the work the AECC university colleges new Centre for Biomechanics Research (CBR). The seminar was about the Centre's work into the individualised biomechanics of the lumbar spine to help with the diagnosis of nonspecific back pain.



Diana De Carvalho

This past June my lab was interviewed by the Canadian Broadcasting Corporation to highlight our current study, "The effect of prolonged sitting on neuromuscular and biomechanical responses of the low back in healthy individuals". This was an exciting opportunity for my students to learn how to effectively translate our research message into an educational story for the public. (CBC Here and Now, June 6, 2018 @ 37:50 <http://www.cbc.ca/player/play/1249805891538>)

Katie de Luca

After a highly intensive and very enjoyable residential in Canada, I have been busy in my new role as a postdoctoral research fellow in the Department of Chiropractic at Macquarie University. I have enrolled in a HDR Supervision Fellowship Program and submitted several grant applications around Back Complaints in the Elderly, including an industry grant to the Chiropractors Association of Australia. I have had several papers accepted for publication, provided a guest editorial in the CAA Research snapshot on the association of spinal pain and comorbidity and recently gave a research symposium presentation to the Dept of Chiro on my PhD journey and research activities.



Andreas Eukland

The springs highlight was attending the CARL residential in Edmonton, Canada and presenting research at the CCA convention in Calgary (April). Another highlight was attending and presenting research at the ECU convention in Budapest, Hungary (May).



Matt Fernandez

Soon after CARL Canada, I joined mentors Greg Kawchuk, Jan Hartvigsen along with Professor Simon French (Macquarie University) in Odesse for the GLA:D Back program. I have also been invited to speaker at the upcoming CA/COCA National Conference in Sydney this September. My presentation: Multimobility—can physical activity or exercise deal with multiple chronic conditions in the elderly, will compliment the conference theme: spinal stenosis – managing an age old problem.



Martha Funabashi

My greatest highlight since the last newsletter is being the new Clinical Research Scientist at the Canadian Memorial Chiropractic College (CMCC). After more than one year focusing on other research areas as a Research Associate at the Collaborative Orthopaedic Research (CORE), I am excited to be able to focus my research on spine, spinal manipulation and safety. Additionally, I attended the International Society for the Studies of the Lumbar Spine (ISSLS) conference last May, where I presented some SafetyNET work and started some exciting collaborations.

Michelle Holmes

Since starting my new position at AECC University College, I have been finding my feet as a new lecturer, whilst balancing my PhD and CARL projects. I recently presented at the European Chiropractic Union's Convention in Budapest, and I won my faculty heat of the 3 Minute Thesis Competition. This month I am presenting at PROMs conference, and next month will be presenting at the ESRC's Research Methods Festival.



Melker Johansson

One of my highlights of the last quarter is the 'Nordic seminar on objective measurements of physical activities and sedentary behaviour' at the National Research Centre for the Working Environment in Copenhagen, Denmark, where I was part of the organizing committee and had the pleasure to present. I have also taken some PhD-courses and have been teaching at the University of Southern Denmark. Last but definitely not least, the CARL Residential at University of Alberta in Edmonton, Canada, was a fantastic week with an exciting and inspiring program.



Highlights from CARL fellows



Craig Moore

I have been invited as a guest lecturer to speak on headache diagnosis and management to senior chiropractic students at Macquarie university in September. I'm excited to now be recruiting chiropractic headache patients from around Australia for my 5th and final PhD paper (thesis submission is planned for December).

Isabelle Page

Last April, I had the honor to receive the 2018 young investigator award from the Canadian Chiropractic Association. I was also awarded for one of the best submitted abstracts at the Association of Chiropractic Colleges meeting and scientific/educational conference - Research Agenda Conference (ACC-RAC) 2018. My highlights for the recent quarter also include our CARL paper 'Correlations between individuals' characteristics and spinal stiffness: a combined analysis of multiple datasets.' that has been accepted for publication in the Journal of Manipulative and Physiological Therapeutics (JMPT) as well as the publication, in the same journal, of a guideline from the Canadian Chiropractic Guideline Initiative (CCGI) on low back pain management on which I was involved.



Katie Pohlman

A highlight of mine since the last newsletter was being asked to be the Director of Research at Parker University. Since I started at Parker in 2015, I have had the honor of using the collaborations with CARL to help faculty conduct research. I look forward to the opportunity to continue to grow the current evidence base, while impacting the next generation of chiropractors. Another highlight is being a co-author on a JAMA Network Open manuscript on chiropractic care for low back pain in the military population. I was the lead project manager for this project, thus it is great to see the impact from the blood, sweat, and tears spent on conducting such a large trial. My PhD thesis continues its slow, but steady progress.

Mike Swain

In 2018, to date I have 7 articles accepted for publication. One of the papers entitled "Relationship between growth, maturation and musculoskeletal conditions in adolescents: a systematic review, published in BJSM" is the last study to be included in my PhD. In January, I commenced supervising 2 chiropractors as they undertake their Masters of Research (MRes) degrees at Macquarie University. Both students are supported by scholarships funded by the Australian chiropractic profession and supervised by CARL Mentors and CARL Fellows. In February, CARL Mentor Greg Kawchuk was conferred the academic title of Visiting Professor at Macquarie University while visiting Sydney, as adjunct supervisor on one of the MRes projects.



Arnold Wong

I was so blessed in the last six months. I renewed my contract as an Assistant Professor at my university. I also obtained two local research grants (USD 200,700) in the capacity of the principal investigator to evaluate the effectiveness of prehabilitation for patients undergoing spinal surgery, and to conduct a dance injury prevention research project. My epidemiological project was lately awarded an international research grant from McMaster University. One of my abstracts was selected as the Top 10 submission to the Society For Scoliosis Orthopaedic & Rehabilitation Treatment meeting 2018. During this period, I published 1 peer-reviewed systematic review protocol, and 3 CARL papers.



CARL Fellows at the Edmonton residential

CARL Projects - Publications since April 2017

1. **Pagé I, Swain M, Wong A, Breen A, De Carvalho D, Descarreaux M, Funabashi M, Kawchuk G.** (2018) Correlations between individuals' characteristics and spinal stiffness: a combined analysis of multiple datasets. *J Manipulative Physiol Ther* (accepted).
2. **Adams J, de Luca K, Swain M, Funabashi M, Wong A, Pagé I, Peng W.** (2018) Prevalence and practice characteristics of urban and rural/remote Australian chiropractors: Analysis of a nationally-representative sample of 1,830 chiropractors. *Australian Journal of Rural Health* (In press).
3. **Adams, J., Kawchuk, G., Breen, Ax., De Carvalho, D., Eklund, A., Fernandez, M., Funabashi, M., Holmes, M.M., Johansson, M.S., de Luca, K., Moore, C., Page, I., Pohlman, K.A., Swain, M.S., Wong, A.Y.L., Hartvigsen J.** (2017) Leadership and capacity building in international chiropractic research: Introducing the Chiropractic Academy for Research Leadership (CARL). *Chiropr Man Therap.* (Accepted)
4. **de Luca, K., Gliedt, J., Fernandez, M., Kawchuk, G., Swain, M.** (2017). The identity, role, setting, and future of chiropractic practice: a survey of Australian and New Zealand chiropractic students. *J Chiropr Educ.* (In press)
5. **Moore, C., Adams, J., Leaver, A., Lauche, R., Sibbritt, D.** (2017) The treatment of migraine patients within chiropractic: Analysis of a nationally representative survey of 1869 chiropractors. *BMC Complement Altern Med*, 17(1), 519. doi: 10.1186/s12906-017-2026-34. 45. 6. 7. 8.
6. **Adams, J., Lauche, R., de Luca, K., Swain, M., Peng, W., Sibbritt, D.** (2018) Prevalence and profile of Australian chiropractors treating athletes or sports people: A cross-sectional study. *Complement Ther Med* 39, 56-61. doi: 10.1016/j.ctim.2018.05.003
7. **Amorin-Woods, L., Moore, C., Adams, J.** (2018). How does a practice-based research network facilitate evidence-informed practice within the chiropractic profession in Australia? A commentary. *Chiropractic Journal of Australia*. Vol 46(2) 172-185



CARL Fellows and mentors at the Edmonton residential

CARL Projects - Conference Abstracts since January 2018

1. **Funabashi M, Pohlman KA**, Mior S, Thiel H, Mill MD, Cassidy JD, Westaway M, Yager J, Hurwitz E, **Kawchuck G**, O'Beirne M, Vohra S. Preliminary findings from an active surveillance reporting system for spinal manipulative therapy regulated providers and low back pain patients. Poster presentation at the International Society for the Studies of the Lumbar Spine (ISSLS) Annual Meeting, Banff, Canada, 2018.
2. **Breen Ax, De Carvalho D, Wong A, Kawchuk G, Pagé I, Funabashi M, Swain M**, Breen A. Apportionment of lumbar intervertebral motion in a standardised flexion and return protocol using fluoroscopy: basic data to improve current spine models. Accepted for podium presentation at the 8th World Congress of Biomechanics, Dublin, July 2018.
3. **Adams J, de Luca K, Swain M, Funabashi M, Wong A, Pagé I, Peng W.** (2018) Prevalence and practice characteristics of urban and rural/remote Australian chiropractors: Analysis of a nation-

ally-representative sample of 1,830 chiropractors. Services for Australian Rural and Remote Allied Health conference, to be held in Darwin in September, 2018.

4. Cooper J, **Pohlman KA, de Luca K.** Attitudes and Beliefs Toward Chronic Low Back Pain: a Cross-sectional Survey of a Chiropractic Institution. Poster presentation at the American Congress of Rehabilitation Medicine, September 30 - October 03, 2018, Dallas, TX, USA.
5. **Pohlman KA, Salsbury SA, Funabashi M, Holmes MM, O'Beirne M, Vohra S.** Patient Safety and Quality of Care in Chiropractic Academic Clinics: A Quantitative Evaluation of Respondent Feedback to an International Survey. Poster presentation at the Integrative Research Congress: Integrative Medicine & Health, Baltimore, USA, 2018.



CARL Fellows and mentors at the CCA Convention, in Calgary



CARL Fellows and mentors at the Edmonton residential

Ongoing CARL Research Projects

Title: Immediate effects of spinal manipulative therapy on clinical and biomechanical outcomes in participants with chronic thoracic pain. Status: Data collected, data analysis will start soon.

Lead: Isabelle Page.

Working group: Arnold Wong, Martha Funabashi, Greg Kawchuk, Diana De Carvalho, Mike

Swain, Katie de Luca, Alex Breen, Andreas Eklund, Katie Pohlman, Martin Descarreaux.

Title: Characteristics of chiropractors who manage people aged 65 and older: A nationally representative sample of 1903 chiropractors. Status: under review

Lead: Craig Moore

Working group: Katie de Luca,

Arnold Wong, Matthew Fernandez, Michael Swain, Jan Hartvigsen, Jon Adams, Wenbo Peng

Title: Evidence-Based Practice Competencies: Evaluation of Progress. Status: Data Baseline manuscript in preparation. Follow-up data are being analyzed.

Lead: Katie Pohlman

Working group: Michelle

Holmes, Anjum Odhwani

Title: Kinetinsense Research – Validation of Low Back Pain Measurements. Status: Data Protocol under development.

Lead: Katie Pohlman

Working group: Alex Breen, Diana DeCarvalho, Martha Funabashi, Melker Johansson, Arnold Wong, Isabelle Page, Greg Kawchuk, Davis McAlister

Ongoing CARL Research Projects (cont'd)

SafetyNET Investigations – Advancing patient safety research for SMT providers

This work involves a series of projects, with current focus on the development of the data collection instruments. The population has been done within a chiropractic teaching institute. Plans are to reach out to practicing doctors on an international platform. The first 3 development projects are listed below:

Title: Determine the incidence of mild, moderate, and serious adverse events following SMT administered by chiropractic interns using the SafetyNET active surveillance reporting paper-based system. Status: Data has been collected and manuscript in preparation.

Title: Determine the incidence of mild, moderate, and serious adverse events following SMT administered by chiropractic in-

terns using the SafetyNET active surveillance reporting electronic system. Status: Data has been collected and analysis currently being done.

Title: Qualitative evaluation of open-ended questions on SafetyNET's Survey to Support Quality Improvement, which was conducted at teaching institutions and among practicing SMT providers. Status: Data being analyzed. Abstract presented at the Integrative Conference in Baltimore in May 2018

Lead: Katie Pohlman

Working group: Martha Funabashi, Craig Moore, Mike Swain, Andreas Eklund, Greg Kawchuk, Michelle Holmes, Sheila Hogg-Johnson, Silvano Mior, Sunita Vohra, Maeve O'Beirne, Stacie Salisbury

Title: Job Analysis of Chiropractors with a Pediatric Specialty.

Status: Data will be collected throughout Summer 2018.

Lead: Katie Pohlman

Working group: Michael Swain, Kali McCormick, Molly Stein

Title: Adverse events following chiropractic treatment in the pediatric population: an active surveillance study. Status: Data is a collected with analysis being prepared.

Lead: Katie Pohlman

Working group: Michael Swain, Lise Hestbaek, Sunita Vohra, Linda Carroll

Title: Attitudes and Beliefs of Chronic Low Back Pain of Faculty and Students at a Chiropractic Institution: a cross-sectional survey. Status: Data has been collected and manuscript in preparation.

Lead: Katie Pohlman

Working group: Katie de Luca, Jesse Cooper, Jordan Gliedt

Title: Profiling Australian chiropractors who frequently discuss pain medication in practice: Analyses of chiropractors from the ACORN practice-based research network. Status: Protocol complete

Lead: Matt Fernandez

Working Group: Michelle Holmes, Martha Funabashi, Arnold Wong, Katie de Luca, Isabelle Page, Katie Pohlman, Jon Adams

Title: Discussing physical activity in the chiropractic consultation: Analyses of 1,924 practitioners



CARL Fellows Arnold Wong and Martha Funabashi attending the ISSLS Conference 2018 in Banff, Canada

from the ACORN practice-based research network. Status: Final draft complete

Lead: Matt Fernandez

Working group: Craig Moore, Andreas Eklund, Michael Swain, Katie de Luca, David Sibbritt, Jon Adams, Wenbo Peng.

Title: The profile of chiropractors managing patients with low back-related leg pain: Analyses of 1,907 chiropractors from the ACORN practice-based research network. Status: Final draft complete

Lead: Matt Fernandez

Working Group: Craig Moore, Wenbo Peng, Katie de Luca, Katie Pohlman, Michael Swain, Jon Adams

Title: Multi-site joint pain in older Australian women. Status: This paper is currently being submitted for peer-review in the European Journal of Pain. The abstract will be submitted to the Chiropractic Australia National Conference and the CAA National National Conference.

Lead: Katie de Luca

Working group members: Matt Fernandez, Andreas Eklund, Arnold Wong, Jan Hartvigsen



CARL Fellows presenting at the CCA Convention, in Calgary

Ongoing CARL Research Projects (cont'd)



CARL fellow Isabelle Page receiving the 2018 young investigator award at the CCA Convention, in Calgary

Title: Challenges and lessons for recruitment within chiropractic studies. Status: Currently collecting and pooling data.

Lead: Michelle Holmes

Working group: Martha Funabashi, Isabelle Pagé, Jon Adams

Title: Practices of female and male chiropractors in Australia: secondary data analysis. Status: pooling data

Lead: Michelle Holmes

Working group: Diana De Carvalho, Isabelle Pagé, Martha Funabashi, Katie Pohlman, Katie De Luca, Craig Moore, Jon Adams

Title: Chiropractic student identity: a global secondary data analysis. Status: pooling data.

Lead: Michelle Holmes

Working group: Katie de Luca, Mike Swain, Dave Newell, Jordan Gliedt

Title: Errors associated with soft tissue displacement when measuring spine kinematics - A comparison of continuous kinematic measures to assess spine motion; comparing motion tracking, accelerometers and fluoroscopy

and the errors associated with soft tissue displacement when measuring spine kinematics.

Lead: Alex Breen

Working group: Diana De Carvalho, Martha Funabashi, Isabelle Page, Greg Kawchuk, Arnold Wong

Title: Does psychological profile, pain intensity and self-rated health modify the association between expectations and the short-term subjective improvement in patients with low back pain? An explorative study using data from a longitudinal multicenter trial. Status: under review

Lead: Andreas Eklund

Working group: Diana De Carvalho, Isabelle Pagé, Arnold Wong, Melker Johansson, Katie Pohlman, Jan Hartvigsen, Michael Swain.

Title: Risk stratification and long-term clinical course after an initial manual treatment package for patients with low back pain, a secondary analysis of a randomized clinical trial. Status: In the planning stages of the project

Lead: Andreas Eklund



CARL mentors at the CCA Convention, in Calgary

Working group: Greg Kawchuk, Jan Hartvigsen, Jon Adams, Katie De Luca, Isabelle Pagé, Martha Funabashi, Diana De Carvalho, Arnold Wong, Michael Swain, Katie Pohlman, Melker Johansson

Title: Systematic Review and Meta-Analysis investigating the relationship between objectively measured sitting time and low back pain in adults. Status: The protocol for this project has been registered with PROSPERO (CRD42017079738). The initial search and paper selection was completed and the quality assessment is currently underway.

Lead: Diana De Carvalho

Working group: Katie de Luca, Martha Funabashi, Jan Hartvigsen, Arnold Wong, Alex Breen, Jon Adams, Greg Kawchuk, Manuela Ferreira, Michelle Swab, and Melker Johansson

Title: What's behind the development of Transient Sitting-Induced Back Pain in Healthy Participants? Status: Statistical analysis completed, manuscript to move forward in the fall.

Lead: Diana De Carvalho



CARL fellows Matt Fernandez, Katie de Luca and Mike Swain at the CCA Convention, in Calgary

Working group: Alex Breen, Arnold Wong, Martha Funabashi, Isabelle Pagé, Greg Kawchuk and Matthew Barrett

Title: Center of rotation location during lumbar spine movements: a systematic review.

Lead: Martha Funabashi

Working group: Diana De Carvalho, Isabelle Pagé, Alex Breen, Greg Kawchuk

Title: Force vectors during posterior-to-anterior Spinal Manipulative Therapy (SMT)

Lead: Martha Funabashi

Working group: Diana De Carvalho, Alex Breen, Isabelle Pagé, Greg Kawchuk

Title: Identification of psychosocial and physical risk factors for low back pain in physiotherapy students

Lead: Arnold Wong

Working group: Martha Funabashi, Greg Kawchuk

Title: Risk factors for chronic low back pain among older adults - a systematic review/meta-analysis

Lead: Arnold Wong

Working group: Martha Funabashi, Luciana Macedo, Susan Armijo Olivo.

Ongoing CARL Leadership Projects



CARL Fellows with leader Dr. Margaret-Ann Armour at the Edmonton Residential

New editorial board positions:

Katie Pohlman:

Journal of the Canadian Chiropractic Association, since 2018

Journal for Contemporary Chiropractic, since 2018

Curator for the Women's Health and Pediatric Track for Parker Seminars, Dallas

Arnold Wong:

Hong Kong Physiotherapy Journal

Martha Funabashi:

Hong Kong Physiotherapy Journal

Student supervision:

Katie de Luca:

4 Masters of Chiropractic 5th year student research projects.

Arnold Wong:

2 PhD students, 2 graduating PhD students, 1 undergraduate research project and 2 Master in Physiotherapy research projects.

AECC UC Research Conveners

Alex Breen and Michelle Holmes:

In an effort to nurture a growing research culture within the AECC University college, 3 new institutional Research Centers alongside our existing Centre of Biomechanics Research have been formed. CARL fellows will be acting as research convener to assist internal and external parties to engage the AECC UC research centers.

Leader of the course "Work related Rehabilitation" part of the Master program "Work and health" at Karolinska Institutet, Stockholm, Sweden.

Led by: Andreas Eklund

Women in Chiropractic Research Mentorship Group

Our group held an informal working lunch on April 27, 2018 at the CCANT 2018 meeting in Calgary, Canada. This session was attended by 18 people, with a fairly equal gender balance (by intention). The purpose of the session was to scope the needs and issues faced by women in chiropractic research and to generate ideas for an initiative to address change going forward. Key messages distilled include: that there is a need for more support of women at various stages of their research careers; the identification that these issues and needs are not mutually exclusive from those faced by men, and that men need to champion these ideals going forward. Following this, our group was connected to Dr. Jane Latimer, a thought leader in this area, through Michael Swain. We had a very helpful conference call in May 2018 to provide further direction. Currently our group is developing a new name and brand for this initiative and we are gathering statistics worldwide to better understand the current capacity of women in leadership, education and research roles.

Led by: Diana De Carvalho

Working group: Michelle Holmes, Katie Pohlman, Katie de Luca, Martha Funabashi, Michael Swain, Isabelle Pagé



Women in Chiropractic Research Lunch at the CCA convention in Calgary



CARL Fellows at the Women in Chiropractic Research Lunch at the CCA convention in Calgary

CARL Fellows - Individual Publications since January 2018

Pagé I, Nougrou F, Lardon A, Descarreaux M. (under review) Changes in spinal stiffness with chronic thoracic pain: correlation with pain and muscle activity. PLoS ONE

Pagé I, Biner É, Descarreaux M. (under review) Vertebral displacement and muscle activity during manual therapy: distinct behaviors between spinal manipulation and mobilization. Journal of Manipulative and Physiological Therapeutics

Bussi res A, Stewart G, Al Zoubi F, Decina P, Descarreaux M, Haskett D, Hincapi  C, Pag  I, Passmore S, Srbely S, Weisberg J, Ornelas J, Stupar M. (2018). Spinal Manipulative Therapy and Other Conservative Treatments for Low Back Pain: A Guideline From the Canadian Chiropractic Guideline Initiative. Journal of Manipulative and Physiological Therapeutics, 41(4), 265-293.

Goertz CM, Long CR, Vining RD, Pohlman KA, Walter J, Coulter I.

The addition of chiropractic to usual medical care for low back pain: A controlled trial. JAMA Network Open. 2018;1(1):e180105. doi:10.1001/jamanetworkopen.2018.0105

de Luca K, Parkinson L, Hunter S Byles J. Qualitative insights into the experience of pain in older Australian women with arthritis. Australian Journal of Ageing, In Press - May, 2018.

Minkalis A, Vining R, Long C, Hawk C, de Luca K. A systematic review of thrust manipulation combined with one conservative intervention for rotator cuff and related non-surgical shoulder conditions. Journal of the Canadian Chiropractic Association, 2018; 62(1)

Swain M, Kamper SJ, Maher CG, Broderick C, McKay D, Henschke N. Relationship between growth, maturation and musculoskeletal conditions in adolescents: a systematic review. British Journal of Sports Medicine. 2018. In press

Burgess A, Swain M, Lystad R. An Australian survey on health and injuries in adult competitive surfing. The Journal of Sports Medicine and Physical Fitness. 2018. Accepted

Ax Breen; R Hemming; F Mellor; A Breen. Intra-subject repeatability of in vivo intervertebral motion parameters using quantitative fluoroscopy. (Submitted June 2018)

Ax Breen; A Breen. Aberrant intervertebral motion in patients with treatment-resistant non-specific low back pain: a retrospective cohort study and control comparison. European Spine Journal (Accepted June 2018)

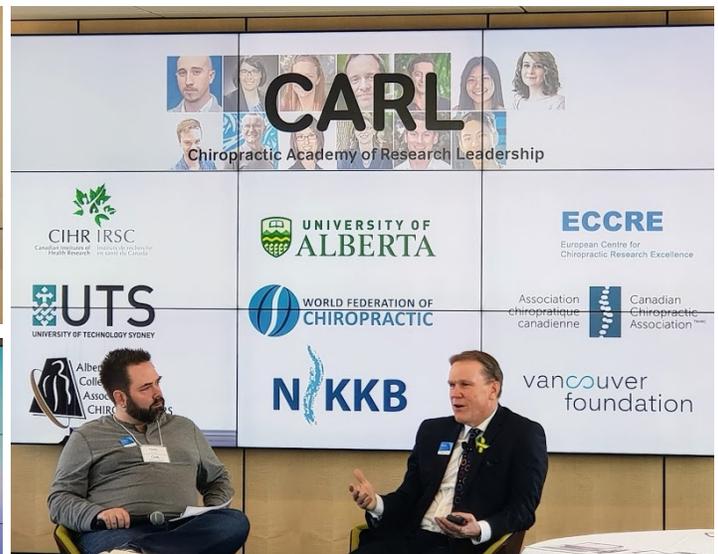
Adams J, Kawchuk G, Breen A, De Carvalho D, Eklund A, Fernandez M, Funabashi M, Holmes M, Johansson M, de Luca K, Moore C, Pag  I, Pohlman K, Swain M, Wong A, and Hartvigsen J. Leadership and capacity building in international chiropractic research: introducing the chiro-

practic academy for research leadership (CARL). Chiropr Man Therap. 2018; 26: 5.

Funabashi M, Nougrou F, Descarreaux M, Prasad MN, Kawchuk G. Does the application site of spinal manipulative therapy alter spinal tissues loading? Spine J 2018; 18(6): 1041-1052.

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Inspirational talks during the CARL Edmonton residential

Upcoming Events



Breakfast with CARL at the Edmonton residential

COCA national Conference and Research Day – Sydney, Australia. 31st August 2018.

EUROSPINE 2018—Barcelona, Spain. 19-21 September 2018. <http://www.eurospinemeeting.org/f130000847.html>

North American Spine Society (NASS) Meeting—Los Angeles, CA, USA. 26-29 September 2018. <https://www.spine.org/am>

OCQ-UQTR convention for the 25th anniversary of the UQTR chiropractic program. Trois- Rivières, Québec, Canada. From September 27 to 29 2018. Full program and registration (early bird rate available until July 27) at uqtr.ca/fc.congres25.

American Congress of Rehabilitation Medicine, September 30 - October 03, 2018, Dallas, TX, USA.

Parker Seminars, Dallas, October 5-6, 2018

CARL Presenters:

Chiropractic Treatment for Older Women - Katie de Luca

An Essential Overview: Spinal Pain in Adolescents - Michael Swain

Every Woman, Every Child -The Chiropractor's Role in this Global

Initiative - Katherine A Pohlman

CAA National Conference, Hobart, Tasmania. 20-21st October, 2018 – call for Abstracts date close July 29 th , 2018



CARL Fellows and mentors after Zumba session at Edmonton Residential

WFC – Education, London, UK, 24-27 October 2018 www.wfc.org

The Danish Chiropractors' Association's biennial conference for continuing education, 'Faglig Kongres', Odense, Denmark – November (8 -10) 2018 Link to website: <http://www.fagligkongres.dk>

The Society for Back pain Research - SBPR 2018 GRONINGEN, NL, 15 - 16 November 2018, <https://www.sbpr.info/>

ACC-RAC, March 14-16, 2019, USA (exact location TBD) – Abstract Submission Date, TBD (~15 September 2018)

EPIC2019: Global Opportunities in Spine Care, 15th WFC Biennial Congress/78th ECU Convention, Maritim Hotel, Berlin, Germany, March 20-23, 2019, abstract submissions close: October 1, 2018.



CARL Fellows and mentors at the University of Alberta Rehabilitation Robotics Lab

14th International Society On Scoliosis Orthopaedic and Rehabilitation Treatment Meeting, San Francisco, USA, April 25-27, 2019 - Abstract submission Due: 12 November, 2018

The International Society for the Study of the Lumbar Spine, Kyoto, Japan, June 3-7, 2019 – Abstract Submission Due: TBD (~15 November 2018)

XVIth International Forum on Back and Neck Pain Research in Primary Care, Quebec City, CA, July 3-6, 2019 - Abstract Submission Due: March 26, 2019

10th Interdisciplinary World Congress on Low Back and Pelvic Girdle Pain, Antwerp, Belgium, October 28-31, 2019 – Abstract Submission Due: 20 December 2018



CARL Fellows and mentors at Edmonton Residential