

The Launch of the Institute of Musculoskeletal Health and Arthritis 2014-2018 Strategic Plan: Positive Implications for Canadian Chiropractors and their Patients

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In October 2014, in downtown Toronto, the Canadian Institutes of Health Research (CIHR) Institute of Musculoskeletal Health and Arthritis (IMHA) held a meeting called Science in Motion. The purpose of the meeting was to bring together IMHA stakeholders to discuss the implementation of IMHA's Strategic Plan for 2014-18. One hundred and nine delegates were invited from over 17 universities, and 34 agencies, centres, networks, coalitions, societies, alliances, companies and institutes from across Canada, and around the world. According to the Director of IMHA, Dr. Hani El-Gabalawy, the responsibility of the invitees was to share their "wealth of assembled knowledge and experience to bear on the key challenge of operationalizing IMHA's Strategic Plan". It was

exciting to see the chiropractic profession represented at such a pivotal event for health research in Canada.

CIHR integrates research through an interdisciplinary structure made up of 13 institutes. CIHR's Institutes are networks of researchers and research users brought together to focus on important health problems. IMHA is the most relevant institute for Canadian chiropractors. IMHA supports research to enhance active living, mobility and movement, and oral health. IMHA addresses causes, prevention, screening, diagnosis, treatment, support systems, and palliation for a wide range of conditions related to bones, joints, muscles, connective tissue, skin and teeth. The overall vision of IMHA is to lead musculoskeletal (MSK), skin and oral health research and

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knowledge translation to improve the lives of Canadians. In order to achieve their vision IMHA has three guiding research themes: 1) Capacity Building; 2) Innovation; and 3) Translation.

The IMHA Strategic Plan for 2014-18 is titled “Enhancing Musculoskeletal, Skin and Oral Health” and has three priority investment areas: 1) Chronic Pain and Fatigue; 2) Inflammation and Tissue Repair; and 3) Disability, Mobility and Health. Four core values are at the heart of the strategic plan. They include: 1) Ethics; 2) Performance Measurement; 3) Evidence Informed Decision Making; and 4) Partnerships and Citizen Engagement.

The meeting was chaired by Dr. Monique Gignac, the Chair of the IMHA Institute Advisory Board. Following the initial remarks and welcoming to the conference by Dr. Hani El-Gabalawy, a video was played to introduce the IMHA Strategic Plan, and the conference. In the video Chiropractic was acknowledged as one of the healthcare disciplines which manages the clinical needs of Canadians. IMHA was committed to ensuring that individual meeting delegates had a voice, and one of the ways to do this was setting up a twitter hash-tag. Delegates were able to provide feedback and comments throughout the day via the twitter hashtag “#IMHASIM.”

The meeting then began with presentations addressing the research gaps that presently exist in the three priority areas. Gary Macfarlane, a Professor of Epidemiology at Aberdeen University in the United Kingdom (UK) spoke on the first strategic priority, *Chronic Pain and Fatigue*. He acknowledged that for arthritis research in the UK, musculoskeletal pain is being explored by both pharmacological and non-pharmacological approaches. He discussed the conduct of clinical trials and that it is imperative to know what outcome measures to apply *a priori* to ensure accurate findings. He also mentioned the STarT Back screening tool developed at Keele University. The

STarT Back tool stratifies low back pain patients, rather than simply sending them all directly for surgical consultation. Similar initiatives are occurring in Canada and could present unique opportunities for the chiropractic profession.

The next presentation addressed the second strategic priority *Inflammation and Tissue Repair* and was presented by Katherine Siminovitch, Director of the University Health Network’s Clinical Genomics Centre and Centre for Genetic Medicine in Toronto. She focused on the genetic involvement in the manifestation of pathological conditions, and epigenetics, which is the study of specific cell types whose protein synthesis is reversible and sensitive to the environment. Her vision is that future medications can focus on “druggable pathways” by using genetic screenings to determine which people will respond to specific drugs. She predicted that the future of pharmaceutical intervention on genetically modifiable diseases will be predictive, preventive and personalized.

The final strategic priority presented on was *Disability, Mobility and Health*. Joy MacDermid a Professor in the School of Rehabilitation Science at McMaster University in Hamilton used a conceptual framework set out by the World Health Organization. She addressed how the severity of MSK disorders can impact mortality through sedentary behaviours that also leads to cardiovascular pathology. She acknowledged that injuries in the workforce related to trauma have gone down, but that the prevalence of MSK strain conditions has increased. She stressed that clinicians prescribing medications or physical activity need to be aware that adherence of patients to the recommended treatments is low. She stated that there is a need to consider alternative and innovative care delivery models, and that researchers need to study dosages of such interventions.

Next, meeting participants were divided into small

groups to discuss the implementation of the strategic plan. Groups were asked to consider three specific questions for three 15-minute discussions as a group:

- 1) What are your suggestions for how the IMHA-specific strategic funding should be allocated within your assigned strategic priority area? Which programs/tools should be used?
- 2) What are the cross-cutting themes within the IMHA strategic priority area you were assigned that would allow IMHA to align itself with other multi-institute initiatives?
- 3) What would be the best way(s) for IMHA's stakeholder communities to have on-going input into shaping both the IMHA-specific and the CIHR multi-institute strategic initiatives?

Each group had a Rapporteur who summarized the discussions, and after consensus from the small group, reported back to the entire conference delegation.

Steven Passmore – Assigned to the Chronic Pain and Fatigue Strategic Priority Area

I participated in a group that consisted of members including the President of the Canadian Rheumatology Association, the Assistant Dean of Research from Dalhousie University, the Director of the Mineralized Tissue Physiology Program from the National Institute of Health's Institute of Dental and Craniofacial Research, the Chair of the Bone and Joint Decade, the Assistant Director of CIHR IMHA, the Executive Director of the Canadian Skin Patient Alliance, and several other professors from Canadian Medical/Doctoral Universities. It was a wonderful opportunity to have a national voice present for the chiropractic profession and the University of Manitoba.

We reached a consensus on the importance of several issues. For new and innovative ideas we proposed that several 1-year catalyst grants could be established. Such pilot grants could create the opportunity for researchers from different disciplines to become aware of how the work of other grantees complements their own and new teams may emerge that can collaborate on future team-based grants. Concern was expressed that if CIHR only focused on the most prevalent diseases, that important research on other diseases could be triaged as being of lower priority and thus valuable science could be missed.

We spoke of developing improved measurement tools to evaluate patient progression through a course of care, moving away from questionnaire usage and toward objective and performance driven measures of patient ability, sleep, and physical activity. We discussed the importance of including representatives from patient advocacy groups in order to hear their perspectives from research design to dissemination and all steps in between. We identified that there should be two separate streams that research could be categorized to: 1) population study – focused on management (study of existing treatments); and 2) mechanism study – focused on finding the cure to disease (new treatment developments). We considered the role of mental health and aging as comorbidities associated with chronic pain and that perhaps successful aging includes having access to interventions that decrease chronic disabling pain. Beyond IMHA we can partner with research foundations, and professional clinical associations to advance our initiatives. The general discussion with all delegates, following each small group reporting back, showed that our discussion was aligned with other groups' discussions.

Simon French – Co-Chair of one of the small groups to discuss the Inflammation and Tissue Repair Strategic Priority Area

My group consisted of various IMHA stakeholders including Canadian university-based researchers working in this research area (Inflammation and Tissue Repair), and patient advocates. Along with my Co-Chair, my role was to facilitate the discussion to ensure that everyone had a voice and to ensure that all three questions were discussed. Our group came up with a number of ideas and suggestions for the implementation of IMHA's Strategic Plan, including: ongoing support of early career researchers; support of small grants to fund pilot work and proof-of-principal research; and effective knowledge translation strategies for the research community about IMHA's initiatives.

During lunch the Chief Scientific Officer and Vice President Research and Knowledge Translation for CIHR Jane Aubin spoke on the CIHR Roadmap II developments and how the IMHA community could engage with the CIHR's initiatives. One major new CIHR initiative is of particular relevance for chiropractors. Canada's Strategy for Patient-Oriented Research (SPOR) is about ensuring



Dr. Hani El-Gabalawy, Scientific Director for CIHR IMHA addresses the conference delegation at the Science in Motion meeting hosted by the Institute of Musculoskeletal Health and Arthritis in Toronto, Ontario on October 30th, 2014.

that the right patient receives the right intervention at the right time. In early November there was a call for grant applications to fund SPOR networks in chronic disease. The aim of SPOR network funding is to provide financial support to improve care and “mobility across multiple chronic diseases”, a focus that should deeply engage the chiropractic community in a large \$25M initiative. There is likely to be relevant musculoskeletal networks funded under this proposal, in which chiropractors, chiropractic researchers and the profession’s stakeholders can become engaged.

The second half of the meeting explored “Networks and Partnerships”. A presentation by Dr Pierre Boyle, Assistant Director of the CIHR Institute of Circulatory and Respiratory Health, focused on the lessons learned in developing research networks, opportunities and challenges experienced. The presentation was followed by a panel discussion on “Network and Partnership Opportunities,” with panel members from a range of backgrounds who collectively had many years’ experience developing and maintaining research networks and partnerships.

Hani El-Gabalawy Summarized the Event with Closing Remarks

Dr. El-Gabalawy’s observations of the event included that participants endorsed the priorities proposed in the new IMHA strategic plan and the establishment of research networks as powerful tools for advancing complex research. He observed that delegates of the meeting now have a deeper understanding of partnership. He also commented that capacity building was needed so early career investigators can be integrated into successful research teams and networks. Further, Dr. El-Gabalawy suggested that the research community needed appropriate measurement tools to determine the impact of research at all levels including CIHR Network, Team, and Operating Grants. Finally, he endorsed the value of continuing engagement with the IMHA community at face-to-face meetings to maintain open communication.

The Role of Chiropractors and Spinal Health in IMHA’s Strategic Plan

Spinal health is front and center in IMHA’s Strategic Plan (2014-18). First, the cover image of the strategic plan is

an artistically lit photograph of a human back. Second, several points of interest to chiropractors are raised in the Strategic Plan. There is the description that when considering chronic pain there is currently a “misuse of potent analgesics” including opiates because we do not fully understand the pathogenesis of chronic pain syndromes. IMHA acknowledges that the current system employs “less effective management” of chronic pain that can lead to “substantial healthcare expenditures,” and that research is needed to address the root cause of pain and explore the extent of its impact on quality of life. To rectify the shortcomings of the existing approach to chronic pain management IMHA seeks to define “optimal strategies of care and management through improved models of care”. Chiropractors in multidisciplinary clinics, hospitals, and universities across Canada are well placed to utilize CIHR funding to pilot, disseminate and evaluate new models of care that include chiropractic services.

In conclusion, supporting chiropractors to be in leadership roles at traditional research-intensive universities via the Canadian Chiropractic Research Foundation (CCRF) strategy has had many benefits. One of these benefits was highlighted by two chiropractic CCRF researchers invited to this important event and this has given the profession a louder voice in the national conversation about how research dollars should be allocated for the benefit of the musculoskeletal health of Canadians.

Online Supplemental Resources:

IMHA 2014-18 Strategic Plan on the web:

English – <http://cihr-irsc.gc.ca/e/48830.html>

French – <http://cihr-irsc.gc.ca/f/48830.html>

Video:

English – <http://youtu.be/rvDmm65sz-U>

French – http://youtu.be/_JJDC7r0Iuw

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