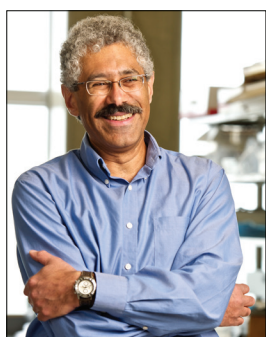


IMHA On the Move!

CIHR Institute of Musculoskeletal Health and Arthritis

April 2015

Message from the Scientific Director



As April is National Volunteer Month, I would like to start the April newsletter by sincerely thanking the volunteers that contribute on a regular basis to advancing IMHA's mandate – our Advisory Board members, Research Ambassadors, and countless other volunteers. IMHA, and CIHR as an organization, are very much indebted to these individuals for their unwavering support.

There has been long anticipation in the research community at large regarding the SPOR Networks in Chronic Disease competition, which will ultimately fund four pan-Canadian networks for \$25 million each, over the course of five years. As per the mandated guidelines for all the SPOR initiatives, half of this funding would need to come from partners. The letter of intent stage (LOI) was launched in the fall of 2014. After rigorous peer review, which included substantial international input, the first stage of the competition has resulted in 20 successful LOI. We are delighted that two of the successful LOI fall directly in IMHA's mandate, and several other LOI include themes that encompass IMHA's focus areas. Please see the official announcement on the CIHR [funding decisions database](#). The next stage will involve the development of full applications by these successful applicants. During this next stage, the proposed partnerships will need to be solidified, and the details of the networks' membership and plans will need to be fully developed and clearly communicated in the application. As with the LOI stage, a rigorous peer review process will ensue that will be based on clearly documented criteria in several key domains, particularly the "patient-oriented" domains, which are at the heart of SPOR. CIHR is planning a strengthening workshop (tentatively scheduled for June 9 in Ottawa) to bring the emerging networks together, seeking to identify synergies and complementarity that would lead to stronger applications. IMHA plans on playing an active role in this strengthening process in order that our communities have the best opportunity to compete for one of the coveted four national networks.

As a co-lead in CIHR's Signature Initiative [Pathways to Health Equity for Aboriginal Peoples](#), IMHA participated in the Signature Initiative's first Annual Meeting March 23-25, which I attended together with IMHA's Assistant Directors. There was an excellent interchange between researchers, Indigenous leaders, and CIHR staff. Much valuable ground was covered, particularly in the area of interfacing traditional knowledge with Western scientific knowledge. A full report summarizing the meeting is now in the final stages of development, and will be available to the public at large shortly. IMHA plays a key role in the oral health exemplar of Pathways, the others being tuberculosis, diabetes and obesity, and suicide.

Finally, I would like to inform our stakeholder communities that IMHA, along with the other CIHR Institutes, is entering an exciting new stage now that the Institute Model Review process is complete, and the recommendations of Governing Council are being operationalized. The next stage will be characterized by a balance between Institute-specific initiatives and multi-Institute initiatives, along the lines of the existing Signature Initiatives. As most of you know, IMHA is the lead Institute for one of those Signature Initiatives, [Inflammation in Chronic Disease](#). We are also working closely with several other Institutes to develop a new Signature Initiative around Work and Health. All in all, we are eager to work on both fronts in order to make IMHA's newly developed Strategic Plan a reality. Stay tuned!

As always, I encourage you to continue to submit any questions or comments to IMHA@cihr-irsc.gc.ca. Please also follow me on Twitter [@HaniElGabalawy](#).

Sincerely,



Hani El-Gabalawy MD FRCP
Scientific Director
CIHR Institute of Musculoskeletal Health and Arthritis

Funding Opportunities



For a full listing of CIHR funding opportunities, please visit the [ResearchNet website](#).

IMHA Funding Opportunities

Program Name: [Operating Grant: Collaborative Health Research Projects \(NSERC Partnered\) \(2015-2016\)](#)

Application Deadline (Phase 1 LOI): May 15, 2015

Program Name: [Team Grant: Pathways Implementation Research Team – Component 2](#)

Application Deadline: September 15, 2015

CIHR Reforms: Funding Opportunities for the 2015 Foundation Scheme 2nd “live pilot” and 2016 Project Scheme 1st “live pilot”

As part of the multi-year approach for the transition to the new Open Suite of Programs and peer review processes, CIHR would like to inform the community that two key funding opportunities are now available:

* Funding Opportunity: [2015 Foundation Scheme 2nd “live pilot” competition](#)

* Funding Opportunity: [2016 Project Scheme 1st “live pilot” competition](#)

A set of questions and answers as well as a number of supporting materials for both competitions can be found through the funding opportunities and on the [CIHR Reforms website](#). Please note that the information in the funding opportunities and supporting documents may change based on the analysis of the results from ongoing pilots. All changes will be communicated and highlighted in the appropriate documents as they are made.

If you have any questions regarding these two funding opportunities, please visit the [CIHR website](#) or send an email to Roadmap-Plan.Strategie@cihr-irsc.gc.ca

CIHR Barer-Flood Prize for Health Services and Policy Research

Application deadline: May 1, 2015

This career achievement award honours and recognizes an exceptional researcher in the area of health services and policy research who has created an influential body of work that has had a substantial impact on health services and policy research, policy and/or care delivery. The prize consists of \$25,000 in research grant funding.

A nominee must:

- be an independent researcher;
- be registered at an eligible institution;
- have at least 10 years of experience as an independent investigator and currently hold a full-time position within a Canadian academic, hospital, not-for-profit or governmental institution or affiliated research institution.

Nominate a colleague today!



CIHR Announcement: New Harmonized Tri-Agency Open Access Policy on Publications

On February 27, 2015, CIHR, NSERC and SSHRC announced the new harmonized [Tri-Agency Open Access Policy on Publications](#). This policy is modeled after the CIHR Open Access Policy which has been in effect since 2008. The harmonized policy requires that researchers receiving grants from CIHR, NSERC and SSHRC make their resulting peer-reviewed journal articles freely available online within 12 months of publication. While CIHR-funded researchers will now refer to the new harmonized policy, compliance requirements have not changed.

Researchers can comply with the policy in one of two ways, by:

- 1) Depositing their peer-reviewed manuscript into an online repository that will make the manuscript freely accessible within 12 months of publication; or
- 2) Submitting their manuscript to a journal that offers immediate open access or open access on its website within 12 months of publication.

Of note, these routes are not mutually exclusive. Depositing publications into PubMed Central Canada is one way in which CIHR-funded researchers can comply. In addition, the cost of publishing in open access journals is an eligible grant expense.

The Tri-Agency Open Access Policy on Publications aligns with the objectives of [Canada’s Action Plan on Open Government](#) and is a commitment under the updated [Science, Technology, and Innovation Strategy](#). Making research results as widely available and accessible as possible is an essential part of advancing knowledge and maximizing the impact of publicly-funded research for Canadians.

Increased access to the results of publicly-funded research can spur scientific discovery, enable better international collaboration and coordination of research, enhance the engagement of society and help support the economy.

Jane E. Aubin, Ph.D.

*Chief Scientific Officer and Vice-President, Research,
Knowledge Translation and Ethics*

IMHA in the News

After IMHA’s Inflammation in Chronic Disease Inaugural Networking Workshop held February 12-13, 2015, the University of Manitoba’s UMToday newsletter shared the news in an [article](#) highlighting the importance of researchers having opportunities to meet and network face-to-face.

Keep Up With The News

In this age of social media, it is important for members of a health research community to be knowledgeable about their health topics in the news. At IMHA, we have been collecting news clips relevant to our areas of research focus. If you would like to receive a bi-monthly mail-out of these “Google Alerts,” please email christine.mazur@umanitoba.ca.

Featured Research: Oral Health

Global burden of untreated caries

By Debora Matthews

The WHO Global Burden of Disease 2010 study recently reported that untreated dental decay (caries) in adult teeth was the most prevalent condition among all 291 diseases and injuries evaluated, affecting 2.4 billion people worldwide (1). While this reports finds that among high income North Americans, one in four adults have at least one untreated dental cavity. The last survey of oral health of Canadians was conducted in 2007-09. There there have been substantial improvements in oral health measures since the 1960's, but the majority of disease occurs in people in lower socioeconomic groups (2). Thus, the WHO figures underestimate the true prevalence in the most vulnerable populations who have limited or no access to dental care.

Untreated caries represents a major biological, social, and financial burden on individuals and health care systems. It can cause severe pain and infection, affecting children's school attendance and performance and adults' productivity at work. In Canada, dental problems and treatment result in an annual 40.4 million hours lost from school and work, with a potential for productivity losses of \$1 billion (3).

Once considered a problem primarily affecting children untreated caries now appears to be peaking later in life, with peaks at age 25 and again in later life. While the WHO report does not tease out the reasons for this shift in prevalence, it may, in part due to the fact that Canadians are more likely to have some or all of their teeth as they age, putting them at greater risk for root decay.

Caries is a preventable disease. The primary risk factor is a diet high in simple sugars. In 2003, and again in 2014 the World Health Organization recommended limiting "free" or added sugars to 10% of total calories as a strategy to reduce obesity and dental decay (4,5). This amounts to 6–9 teaspoons of sugar per day (depending on age, gender and activity level). To put this in perspective, 1 can of cola and 1 glass orange juice each contain the equivalent of 10 teaspoons of sugar. At fast food restaurants, an average serving of sugar-sweetened soda approaches 30 grams of sugar per serving (6).

The World Sugar Research Organisation (WSRO), which represents more than 30 international members with economic interests in the cane and beet sugar industry successfully blocked the 2003 policy, and have signaled their willingness to do the same for a more recent (2014) WHO policy (7).

Based on documents reported in a recent publication (8), the sugar industry influenced research priorities of the NIDCR (the American equivalent of IMHA) in the 1960's and 70's, deflecting attention away from sugar restriction as a means to control caries; rather focusing on alternative methods including development of a caries vaccine, altering the virulence of oral bacteria, and modifying food products with additives to counter sugar's harmful effects.

Unfortunately, these alternative methods have proven to be ineffective, as both the prevalence and incidence of dental caries

remains unchanged over 2 decades. Completely eradicating tooth decay may not be feasible, but restriction of sugars and clear labeling of added (in addition to natural) sugars to nutritional labels may prove to be a giant step in the right direction.

References

1. Kassebaum NJ, Bernabe E, Dahiya M, Bhandari B, Murray CJL, Marcus W. [Global burden of untreated caries: a systematic review and metaregression.](#) *Journal of Dental Research* 2015; (online print March 4, 2015) 1-9
2. Report on the Findings of the Oral Health Component of the Canadian Health Measures Survey 2007–2009 <http://www.fptdwc.ca/assets/PDF/CHMS/CHMS-E-tech.pdf>. Accessed March 20, 2015
3. Hayes, A, Azarpazoooh A, Dempster L, Ravaghi V, Quinonez C. [Time loss due to dental problems and treatment in the Canadian population: analysis of a cross-sectional survey.](#) *BMC Oral Health* 2013; 13:17
4. (2003) Joint WHO/FAO expert consultation on diet, nutrition and the prevention of chronic diseases. WHO Technical Report Series No. 916. http://whqlibdoc.who.int/trs/who_trs_916.pdf. Accessed 18 March 2015.
5. World Health Organization Nutrition Guideline Advisory Group (2014) [Guideline: sugars intake for adults and children—draft guidelines on free sugars released for public consultation](#), 5 March 2014. Geneva: World Health Organization 3.
6. <http://www.hsph.harvard.edu/nutritionsource/how-sweet-is-it/> Accessed March 15, 2015
7. The Sugar Association (2014) The Sugar Association voices concern regarding the World Health Organization (WHO) draft guideline development process and lack of transparency. <http://www.sugar.org/sugar-association-voices-concern-regarding-world-health-organization-draft-guideline-development-process-lack-transparency/>.
8. Kearns C, Glantz S, Schmidt L. [Sugar industry influence on the scientific agenda of the National Institute of Dental and Craniofacial Research's 1971 National Caries Program: A historical analysis of internal documents.](#) *PLoS Medicine* 2015;12(2): e1001798

IMHA Advisory Board member, Dr. Debora Matthews, is a Professor in the Department of Dental Clinical Sciences at Dalhousie University and a Research Associate of the Atlantic Health Promotion Research Centre.

On the Sidelines:

Global Tooth Decay

In March, the [BBC reported](#) the results of the global survey conducted by scientists at Queen Mary University of London, that suggests billions of people are living with untreated tooth decay. The BBC emphasised the main reason is diet: consumption of high amounts of sugar-filled food and drinks, and frequent snacking. Researchers express concern about the significant socio-economic burden this has across the globe.

The Fluoride Fight...again

Research recently published in the [BMJ Journal of Epidemiology Community Health](#) by Peckham et al. resurrected some debate in the oral health research community when it suggested a link between water fluoridation and hypothyroidism. Strong and immediate reactions in both mainstream and scholarly press pointed out the study's weaknesses and overwhelming evidence to the contrary, emphasizing clear evidence of the benefits of water fluoridation. Please see [David Robert Grimes' Commentary](#) in *BMJ's J Epidemiol Community Health* and [Patrick Duquette's editorial](#) in *La Presse*.

Researcher Profile: Dr. Elham Emami - “Fostering Oral Health Through Interdisciplinary Research: Intervention, Access and Impact”

Dr. Elham Emami is a recent recipient of an IMHA-supported CIHR Clinician Scientist program award. Her research focus is an interdisciplinary project examining access to dental care and a patient-centred outcome. We recently had the opportunity to interview Dr. Emami about her research.



Clinician-researcher-dentist. People with this combination of professions are rare and much-needed in the field of oral health research. Dr. Elham Emami is that and more. A clinical scientist with an MSc in Prosthodontics from the University of Montreal, she is an associate professor in the Department of Restorative Dentistry, Director of the Oral Health and Rehabilitation Research

Unit, and a research associate at the Centre de recherche Hospitalier l'Université de Montréal (CRCHUM). At McGill University, where she completed a PhD in Biomedical Science through the joint McGill- University of Montreal program, she is an Adjunct Professor in the Faculty of Dentistry. Last but not least, Dr. Emami held postdoctoral fellowships in both Dental Public Health (McGill), and Cancer Epidemiology with the Environmental Epidemiology and Population Health research group (University of Montreal).

Becoming a Clinician-Researcher

Though being a dentist was not Dr. Emami's dream job or lifetime wish, the honors student with high grades in health science started out as one. Looking back, she is glad to have had the opportunity to help others in that capacity but wanted more: “Although I had total job satisfaction, inside I was sorry not to have pursued postgraduate education: I love to be at school, to learn and learn!”

Scientific curiosity compelled her to be more than a clinician, while the desire to maintain direct contact with patients succeeded in helping her to bridge the gap between research and clinical care. When the opportunity arose, she returned to school, studying prosthodontics. “You treat patients who have lost one of the major body parts, their teeth, and you try to give them back their daily life functions and well-being such as eating, speaking and smiling with confidence,” she explained.

As an undergraduate, Dr. Emami's thesis work involved an interdisciplinary community project investigating how dentists or their patients could be involved in drug abuse. “This was my earliest introduction to research and its role in clinical dentistry,” she said.

Later, as a dentist working in public and private sectors in diverse geographical locations and with different population and age groups, she began to understand how different biological, environmental and societal factors could influence oral health. “I was able to resolve some of my patients' oral health problems,” she said, “but there was no scientific evidence to support therapies for many others. Thus, my mind turned to certain questions and hypotheses that I wished to test.”

The most compelling aspect of researching oral health for Dr. Emami is that “the burden of poor oral health and its associated costs are considerable.” She explained, “Evidence shows an

association between oral health and quality of life, psychosocial disabilities and systematic diseases.”

Research Program

Dr. Emami is specifically interested in looking at the different factors affecting oral health in the context of general health and public health to see how best to implement evidence-based approaches and translate knowledge into informed decision-making. To achieve this, her research program is deliberately multidimensional and collaborative, with the ultimate goal being to decrease the burden of poor oral health at the individual, community and population levels. Broken down into her three research themes, her separate goals are:

- **Intervention:** testing prosthetic treatments to improve oral health and quality-of-life of toothless people;
- **Access:** addressing social and distance barriers in access to dental care services;
- **Impact:** discovering how poor oral health can affect general health.

She explains, “In the **intervention** theme, I am conducting clinical trials to test the effectiveness of prosthodontic interventions in promotion of oral health, general health and quality of life for edentate individuals, especially elders. Through this theme, currently I am leading the CIHR-funded randomized control trial to test the effect of wearing the prosthesis at night on sleep and quality of life of elders.

“Through the **access** theme my research helps to better understand the social/spatial pathways of oral health disparities. I have established a strong partnership with rural/remote stakeholders and developed a series of ongoing collaborative community-based projects to develop and implement innovative strategies targeting oral health prevention and promotion. Recently CIHR funded our knowledge synthesis project on the integration of oral health in primary health care.

“Finally, the **impact** theme provides causal explanations on the role of oral health in general health. In our ongoing research project on this theme, we are investigating the role of poor oral health in the risk of sporadic colorectal cancer.”

Sustainability Through Partnership

In her research program, Dr. Emami has established and continues to maintain strong partnerships with decision makers, researchers, and health professionals, building on trust, common understanding and interests, shared insights and collaborative decision-making and work. The most important message Dr. Emami would like to share about her research program with policy makers, regular dentists, other oral health researchers and patients is that, “We live in Canada, one of the best places in the world for observing icebergs. So let's apply the “Iceberg Model” to oral health and use a systems thinking approach to share our responsibilities in maintaining an optimal level of oral health at population, community and individual levels.”

Researcher Profile continued on page 5...

Partner News



Arthritis Alliance of Canada

IMHA Advisory Board Member Dr. Jeff Dixon has recently joined the AAC's Alliance Research Committee as Co-chair with Dr. Deborah Marshall from the University of Calgary. The committee serves to focus and facilitate collaboration in aligning and strengthening arthritis research in Canada. Visit the Arthritis Alliance [website](#) for more information.



Research Excellence
Advancing Employee
Health

Institute for Work and Health

News of new studies regarding work-related injuries and

knowledge translation methods to promote worker safety is included in the latest Institute for Work and Health e-newsletter, [IWH News](#).

Meetings of Interest

[Canadian Pain Society's 36th Annual Scientific Meeting](#)
May 20-23, 2015 Charlottetown, PEI

[12th Annual Cochrane Canada Symposium](#)
May 21-22, 2015 Calgary, AB

[Ontario Rheumatology Association AGM](#)
May 22-24, 2015 Muskoka, ON

[Canadian Orthopaedic Nurses Association Conference](#)
May 24-27, 2015 Fredericton, NB

[Canadian Association of Occupational Therapists \(CAOT/ACE\) Congress 2015](#)
May 27-30, 2015 Winnipeg, MB

[21st Canadian Connective Tissue Conference 2015](#)
May 28-30, 2015 Université Laval, Québec City, QC

[28th Annual Canadian Student Health Research Forum](#)
June 2-4, 2015 University of Manitoba, Winnipeg, MB

[23rd World Congress of Dermatology](#)
June 8-13, 2015 Vancouver, BC

[EULAR Rome 2015](#)
June 10-13, 2015 Rome, Italy

[Canadian Physiotherapy Association National Congress](#)
June 18-21, 2015 Halifax, NS

[12th Annual World Congress on Industrial Biotechnology](#)
July 19-22, 2015 Montreal, QC

[Cochrane Collaboration Colloquium](#)
October 3-7, 2015 Vienna, Austria

[4th International Conference on Orthopedics & Rheumatology](#)
October 26-28, 2015 Baltimore, Maryland, USA

[American College of Rheumatologists \(ACR\) Annual Meeting](#)
November 6-11, 2015 San Francisco, CA

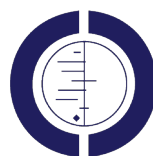
Researcher Profile *(Continued from page 4.)*

Regarding the future of oral health research, Dr. Emami advises, "To ensure the sustainability of the clinician-scientist career, especially in oral health, we should work at the undergraduate level. It is necessary to implement academic programs and educational policies that increase dental students' awareness of and motivation towards such careers. DMD/PhD programs need be encouraged in Canadian dental faculties, and the evaluation of existing DMD/PhD programs could lead to better understanding of their effectiveness and their challenges. Financial incentives such as scholarships and ensuring tenure-track positions for clinician/scientists would likely support the growth of this profile." □



Networks of Centres of Excellence

A series of [success stories](#) has recently been published on the CIHR website regarding the Networks of Centres of Excellence (NCEs), which make strategic investments in focused scientific areas to maximize Canada's research strengths. [Networks of Centres of Excellence](#) include AllerGen, Stem Cell Network, PREVNet, MaRS Innovation, and others. The newly-published success stories provide a summary of all of the NCEs and the impact they have been having on the health of Canadians.



THE COCHRANE
COLLABORATION®

Cochrane Corner

Cochrane Reviews are an important part of knowledge translation. [The Cochrane Collaboration](#) works to disseminate knowledge to health research communities so as to benefit patients and the health care system as a whole.

Besides the Reviews, the Canadian Cochrane Centre has an newsletter, *Relay Cochrane!* published three times a year, and a *Training and Events newsletter* published twice a year.

The Cochrane website also features a list of all its resources in the [Full Menu of Knowledge Translation Activities](#).

Select Reviews from the Cochrane Oral Health Group:

[Antibiotic prophylaxis for preventing infectious complications in orthognathic surgery](#) (New) January 2015

[Intraoperative local anaesthesia for reduction of postoperative pain following general anaesthesia for dental treatment in children and adolescents](#) (New) December 2014

[Caffeine as an analgesic adjuvant for acute pain in adults](#) (Stable, no update expected for reasons given in 'What's new') December 2014

[Slow-release fluoride devices for the control of dental decay](#) (New search for studies and content updated, no change to conclusions) November 2014

[Interventions for the management of taste disturbances](#) (Edited, no change to conclusions) November 2014

[Interventions for dysphagia in oesophageal cancer](#) (New search for studies and content updated, no change to conclusions) October 2014

[Pharmacotherapy for sleep bruxism](#) (New) October 2014

Contact Us

Be a part of the IMHA community! Please send news and information and subscribe to our newsletter mailing list by emailing christine.mazur@umanitoba.ca

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CIHR Institute of Musculoskeletal Health and Arthritis

University of Manitoba
290 Brodie Centre
727 McDermot Avenue
Winnipeg, MB R3E 3P5
Tel: 204-318-2550

[Online at CIHR.](#)