



CIHR IRSC
Canadian Institutes of Health Research
Instituts de recherche en santé du Canada

Institute of Musculoskeletal Health and Arthritis Newsletter: April 2013

IMHA - *On the Move!*

A Message from the Scientific Director



This is my last newsletter to you as interim Scientific Director of IMHA, as my term will end on April 15 of this year. In spite of the limitations in long-term planning that an interim term dictates, I can say with pride and conviction that we have been able to accomplish a great deal in the past 20 months. Among these accomplishments include the launching of the Inflammation in Chronic Disease Signature Initiative, a

publication of IMHA and Canadian Arthritis Network research entitled: *Celebrating the impact of Health Research: Success Stories in Arthritis, Bone, Muscle, Musculoskeletal Rehabilitation, Oral health, and Skin* to be issued later this spring, the first-ever [IMHA Young Investigators Forum](#) held in June of 2012, the [convening of the Canadian Skeletal Muscle community](#) in order to plan future networking activities, participation in several signature initiatives such as [Community-Based Primary Health Care](#) and [Personalized Medicine](#), and the planning and collecting of important data for the next IMHA strategic plan, to replace the existing plan which expires this year. We have done our best to maintain, enhance, and in some cases initiate, regular fruitful dialogue with our scientific and stakeholder communities. I wish to thank the staff of IMHA, as well as the IMHA advisory board, the other Scientific

Directors, and the Ottawa-based CIHR staff, for a thrilling and educational opportunity to lead this great Institute – we are passing a very healthy and energized IMHA into the hands of the incoming Scientific Director.

In funding news, the decisions for the team grant: Health Challenges in Chronic Inflammation of the Roadmap Signature Initiative: Inflammation in Chronic Disease, will soon be posted on the Funding Decisions website. This grant will provide an opportunity for the inflammation community to come together in a national initiative that will transform the clinical outcomes for all patients suffering from inflammation. More information can be found on the [Signature Initiatives webpage](#).

April is Oral Health Month; take a look at the researcher profiles that will be posted on the [IMHA News webpage](#) later this month.

THANK YOU TO OUR MANY VOLUNTEERS!

April 21-27, 2013, is Canada's National Volunteer Week and so we want to take this opportunity to recognize the invaluable contributions that many of you make; in so many ways, you are responsible for IMHA's success and for helping to make health research in Canada the best it can be. We extend these acknowledgments to our Institute Advisory Board (IAB); from all of us, our sincerest THANKS!

If you have any questions about our newsletter, or if you would like to submit content, please contact us at imha.iala.cihr.irsc@utoronto.ca.

Sincerely,

Phillip Gardiner PhD
Interim Scientific Director
Institute of Musculoskeletal Health and Arthritis

Contact Us

CIHR - Institute of Musculoskeletal Health and Arthritis
Faculty of Medicine, University of Toronto
The Banting Institute,
100 College St., Room 207B,
Toronto, ON, M5G 1L5
Tel: 416-946-7243
Email: imha.iala.cihr.irsc@utoronto.ca
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IMHA FUNDING OPPORTUNITIES

For information on current funding opportunities, please visit [IMHA's Funding Opportunities](#).

[CIHR Partnership Award](#)

Nomination deadline: May 1, 2013.

[CIHR Barer-Flood Prize for Health Services and Policy Research](#)

Application deadline: May 1st, 2013.

[Operating Grant: Collaborative Health Research Projects \(NSERC Partnered\)](#)

Letter of Intent due: May 15, 2013.

Spring 2013 Priority Announcement

- [Dissemination Events](#)
- [Planning Grants](#)

Application Deadline: June 17, 2013

Institute Advisory Board Renewal

CIHR is renewing the membership of its thirteen Institute Advisory Boards (IABs). Online applications for the 11th annual cycle of IAB renewal can be submitted via ResearchNet until **April 15, 2013**. IABs will be

composed of 12 members in 2013. Detailed [instructions on how to apply](#) to become an IAB member are available on the CIHR website.



Share your expertise

Become a CIHR Institute Advisory Board Member

Funding Organizations Launch Joint Conflict of Interest and Confidentiality Policy

The four federal research funding organizations—the Canada Foundation for Innovation, the Canadian Institutes of Health Research, the Natural Sciences and Engineering Research Council of Canada, and the Social Sciences and Humanities Research Council of Canada—have developed a new, harmonized [conflict of interest and confidentiality policy](#).

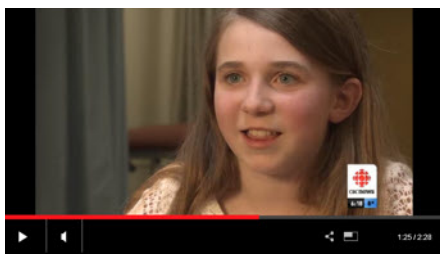
The Conflict of Interest and Confidentiality Policy of the Federal Research Funding Organizations will help ensure that the peer review process continues to meet the highest ethical and integrity standards and preserves the trust and confi-

dence of the research community, the government, and the public.

The policy will be integrated into each organization's peer review process in the coming months. Review committee members, external reviewers and observers will be required to agree to comply with the policy and to take necessary measures to protect the public interest in all conflict-of-interest situations.

Questions should be directed to: FundingPolicy@cihr-irsc.gc.ca.

Good News Story



Optimism about childhood arthritis

This [CBC video on childhood arthritis](#) features, Senya (left), the daughter of one of our IMHA Research Ambassadors, who was diagnosed with childhood arthritis at the age of two.

Vancouver's Dr. Ross Petty would be surprised if a cure is not found within two decades.

Meetings of Interest

[The 10th International Congress on SLE – Lupus 2013](#)

April 18-21, 2013

Buenos Aires, Argentina

[Canadian Pain Society Conference](#)

May 8-10, 2013

Winnipeg, MB

[Canadian Physiotherapy Association Congress](#)

May 23-26, 2013

Montreal QC

[Canadian Association of Occupational Therapists Annual Meeting](#)

May 29-June 1, 2013

Victoria, BC

[Canadian Connective Tissue Conference](#)

May 29-June 1, 2013

Montreal QC

[Update on Psoriatic Arthritis](#)

July 11, 2013

Toronto, ON

Did You Know?



In 2012, our institute conducted a survey of all researchers and trainees working in an IMHA-relevant area and funded by CIHR since 2000. One of our questions asked respondents about their research interests. The findings indicate that oral health researchers have a variety of research interests with a strong focus on patient-oriented research (e.g., clinical and health systems). The top 3 interests of oral health

researchers were clinical research, the biology/physiology of oral health, and health systems. These research interests are aligned with CIHR's Strategy for Patient-Oriented Research, and with other current and upcoming CIHR Signature Initiatives aimed at addressing health and health system research priorities. In this context, oral health researchers in Canada may be well positioned to capitalize on upcoming CIHR funding opportunities; in fact, compared to IMHA's six other focus areas (arthritis, muscle, bone, MSK rehab, and skin) oral health researchers were the only group listing both clinical and health systems research as their top 3 interests.

A rare gem in rare bone disease research

Who?

Dr. Marc McKee, McGill University

What's the issue?

Developing effective treatments for rare bone diseases

What's the research?

Dr. Marc McKee, a CIHR-funded researcher at McGill University, is focused on understanding the process of biomineralization and its role in rare diseases that affect the growth and function of bones and teeth.

Dr. McKee's team, in collaboration with Nilana M.T. Barros of the Federal University of Sao Paulo and her team, recently identified that accumulation of the protein osteopontin in bones and teeth likely causes them to be soft (undermineralized) in the most common form of heritable rickets, known as X-linked hypophosphatemia (XLH). In XLH, the bones bend and deform, and the teeth become infected, because of this defective mineralization.

This discovery builds on previous research linking XLH to the mutation of a gene called PHEX which encodes an enzyme that deactivates osteopontin allowing mineralization to proceed, and opens the door to developing an enzyme-replacement therapy to treat XLH patients. A similar approach has been used by the McKee team and others to treat another rare bone disease called hypophosphatasia.



From left to right: Lydia Malynowsky (Electron microscopy technician), Dr. Marc McKee, Betty Hoac (graduate student)

What's the impact?

This work may lead to a new treatment for heritable rickets and may have a broader impact on other diseases or conditions in which biomineralization plays a role.

"Research in this area is not just about this disease," says Dr. McKee. "We are opening doors to the development of treatments for all kinds of problems related to the formation of hardening minerals in the body, including seemingly unrelated areas such as the pathologic calcification that occurs in cardiovascular diseases, arthritis and even kidney stones."



Left: bowed legs from soft bones in rickets (courtesy, Michael L. Richardson) Right: incisor tooth root abscess in XLH patient (courtesy, Dr. Catherine Chaussain)



Fact: XLH is one of nearly 8,000 rare diseases discovered to date. An estimated 2.8 million, or 1 in 12, Canadians currently live with a rare disease. Canada's new Orphan Drug Policy will help provide Canadians with access to approved therapies for rare diseases. Orphanet-Canada is a web-based resource that provides Canadians with the latest information on rare disease and orphan drugs.

Links to other resources

[CORD: Canadian Organization for Disorders](#)

[Orphanet: reference portal for information on rare diseases and orphan drugs](#)

Oasis: Guiding knowledge translation in oral health

A Q&A with Dr. John O’Keefe, Director of Knowledge Networks, Canadian Dental Association



What do you do?

As Director of Knowledge Networks at the Canadian Dental Association (CDA), I am responsible for the JCDA Oasis project. Oasis is an acronym for Online Advice & Searchable Information System. Oasis has 3 components: JCDA.ca, our peer-reviewed and indexed journal with an Impact Factor; Oasis Help, a chairside clinical decision support tool bringing crucial knowledge right to the point of care; and Oasis Discussions a site where credible experts answer clinicians' everyday questions in a timely manner. We recognize that you can have amazing online resources but if nobody knows about them they gather cyberdust. We therefore have two outreach tools: a JCDA Oasis print magazine (currently 6 times per year, but probably increasing in frequency, and a weekly e-zine called JCDA Oasis Bulletin. I also play an ambassadorial role for the CDA.

What does knowledge translation mean to you?

I buy-in to the CIHR conception of knowledge translation (KT) and I think of it as a circular flow of knowledge from knowledge users to knowledge generators with the former informing the latter of their needs and the latter acting on those articulated needs to produce new knowledge (or repackage old knowledge) that is disseminated back out to users in user-friendly formats. KT is a conversation between equals, in my view, albeit equals with different talents and strengths. Mutual respect is central to the success of KT.

Because we want to make our mark in KT, we have created a JCDA Knowledge Translation Council composed of the Associate Deans for Research at each of Canada's 10 dental schools. They are currently telling us about their research success stories and we are committing to make these stories exciting in the eyes of the JCDA community. We have also run surveys for researchers allowing them to get the insights of general practice dentists to inform their research projects. We want to do much more of this. We are also acting as knowledge translation partners for CIHR grant applicants from our sector. We take knowledge translation seriously, and we believe we can be world class at it.

How do you reach your community?

I believe in a "hub & spokes" reach strategy, and I don't see any geographical borders. While my primary responsibility is to inform Canadian dentists and their teams so that excellent & safe dental care can be provided to Canadians, we reach a global community with our dissemination tools and we call on a global community of experts to provide credible responses to questions on a timely basis.

Central to our reach strategy are being known and liked by a broad range of people. If the worlds leading experts will answer our phone calls and open our email messages we have a competitive advantage. This will only happen if they know and like us. We have invested in getting known and liked for years.

We also need to have respected dissemination channels. Our print publication goes to every dentist and dental student in Canada as well as a range of subscribers in Canada and beyond. Our online JCDA has been openly accessible to the whole world since its launch in 1998. If you give you get back in return "ten times over" as Willie Nelson sang years ago.

What tools do you use for knowledge translation?

In reality, our biggest knowledge translation tools are our ears and our eyes, because we really do try to listen to the needs of the various segments of our community and those we touch, and we need to be alert in our observations of new trends and needs that are developing. Another tool for knowledge translation is humility – because the focus absolutely has to be on the needs of the stakeholders and not on the prestige of the publication (to use a traditional term).

What are some of the challenges and how do you deal with them?

I would say that the biggest challenges I face are getting the attention of a whole range of busy "frazzled" people in our sector, promoting volunteerism at a time where great people have too many calls on their time and intellectual capital, and also promoting the sharing of knowledge when the hoarding of knowledge is often the easy way.

How do I deal with these challenges? I am careful to promote a culture of deference in our core staff team – as we are constantly conscious that we serve the needs of the people who employ us. We constantly seek meaningful return on engagement opportunities so that we can reward the amazing volunteer efforts that keep our services afloat. We thus have to know our people and what rewards are important to them. I often joke in speaking to potential volunteers that "I can't make you rich, but I can make you world famous."

I seek to make it easy and risk-free for people to share knowledge with others through us. If we exceed people's expectations and we make it fun to share through us, I think we could be on to something. I have a north star that guides me, which is to sail the 7 Cs (convene cheerful & comfortable community around credible clinical content), and I know that I will have to endure a ton of setbacks on my way to the north star. If you are braced for adversity, it becomes easier and easier to tolerate.

An academic at McGill told me recently 'John, you are off in the right direction with JCDA Oasis. It is early days yet and you face lots of big obstacles. However, if you can stay in the game, Oasis will be a game changer.' Facing this challenge is what keeps me going and knowing that what we are doing will have a positive impact on the health of Canadians also makes it easy for me to get out of bed in the morning.