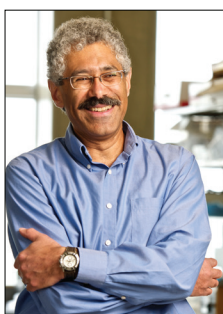


IMHA On the Move!

CIHR Institute of Musculoskeletal Health and Arthritis

Winter 2016

Message from the Scientific Director



Welcome back to a busy new year. I would like to raise a few important things to our stakeholder community's attention. Without further ado, here we are:

Project Scheme: 2016 First Live Pilot

The [Project Scheme: 2016 First Live Pilot](#) funding opportunity is underway. After considering feedback from the community, CIHR decided on June 22, 2015 to remove the limits

on the number of applications that could be submitted by an individual principal applicant for this Project Scheme competition. Having done this, CIHR is reaching out to encourage applicants to submit only their most competitive application(s). Indeed, as announced in June, CIHR is monitoring the application pressure for this pilot and balancing application pressure against reviewer burden for the competition timelines planned. If the total number of registrations received presents an unreasonable burden on peer reviewers, which in turn could compromise their ability to produce high quality reviews in a short time period, CIHR may be required to re-implement restrictions to number of applications or change aspects of the competition timelines. For example, once registration numbers are known, CIHR may be required to ask principal applicants who have registered multiple proposals to defer one or more of them to a subsequent competition, and/or we may need to modify the competition timelines (e.g., extend the Notice of Decision date).

Please visit the [CIHR website](#) for more information about the Project Grant competition. If you have any questions about this pilot competition, contact support@cihr-irsc.gc.ca.

College of Reviewers:

As the research community knows, CIHR is actively recruiting and building the [College of Reviewers](#). This college will be the foundation for excellence in CIHR's peer review process for the upcoming years. Recruitment is being undertaken using multiple strategies. An important step currently is that of choosing a slate of College Chairs who will have the important

tasks of overseeing recruitment of the College membership, identifying competition Chairs, and working with CIHR to develop specific approaches to improve peer review quality. An "expression of interest" step will be launched imminently to begin this process. I will personally be contacting some of the CIHR- IMHA research community to encourage their participation in this key role.

CIHR - IMHA's focus on Chronic Pain and Fatigue priorities:

As most of the stakeholder communities are aware, Chronic Pain and Fatigue has been identified as a priority in the [CIHR - IMHA 2014-18 Strategic Plan](#). I can tell you that in 2016 we will be actively pursuing various initiatives in this priority area, including a consensus conference and a number of funding opportunities. We will keep you well informed through this newsletter, social media, and other communication tools.

Finally, I hope your year is off to a great start, with lots of optimism, energy, and good will. I know mine is!

I appreciate hearing from our stakeholder community members. Please send any questions or comments to IMHA@umanitoba.ca, and please also follow me on Twitter @ [HaniElGabalawy](#).

Sincerely,

Hani El-Gabalawy MD FRCPC, FCAHS
Scientific Director
CIHR Institute of Musculoskeletal Health and Arthritis

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Funding Opportunities and News

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

Embedded Clinician Researcher

Salary Award

Deadline for applications: March 3, 2016

The CIHR Institute of Health Services and Policy Research (CIHR-IHSPR) and Institute of Musculoskeletal Health and Arthritis (CIHR-IMHA) are pleased to announce the launch of a new funding opportunity: [The Embedded Clinician Researcher Salary Award](#). For more information, please contact:

If you have questions about this funding opportunity, please contact the **CIHR Contact Centre** at:
Telephone: 613-954-1968
Toll Free (Canada): 1-888-603-4178
Email: support@cihr-irsc.gc.ca

2015 Bioinformatics and Computational Biology Competition

Deadline for full applications: March 4, 2016

Genome Canada, in partnership with the Canadian Institutes of Health Research (CIHR), is [seeking proposals for research projects](#) to address any aspect of bioinformatics and computational biology (B/CB) as it relates to genomics. Please visit the Genome Canada website for full information on the [2015 Bioinformatics and Computational Biology Competition](#).

Please note that all interested applicants must have previously registered.

Spinal Cord Injury research funding: Call for Proposals for “European Research Projects on External Insults to the Nervous System”

Deadline for pre-proposal submission: March 14, 2016

CIHR Institute of Neurosciences, Mental Health and Addiction (INMHA) has partnered with ERA-Net NEURON to support team grants focused on [Traumatic Brain Injury or Spinal Cord Injury](#). INMHA, the Ontario Neurotrauma Foundation and the FRQS will support up to 6 teams in this call.

The deadline for application (Letters of Intent) will be March 14th, 2016, with Full Applications due June 30th, 2016.

Contact Us

Be a part of the CIHR-IMHA community! Please send news and information and subscribe to our newsletter mailing list by emailing the Institute [Communications Project Officer](#).

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CIHR News

Update on the 2016 1st Project Grant Live Pilot Competition

Summary of Research Proposal

CIHR has heard concerns regarding the requirement for the Project Grant summary of research proposal to remain unchanged between registration and application. After having considered the feedback received, CIHR has made the decision to allow changes to the research summary at the application stage. Please visit the [Project Grant – Summary of Research Proposal web page](#) for more information.

Knowledge Translation and Commercialization within the Project Grant competition – A ‘special consideration’

CIHR has established a ‘special consideration’ within the Project Grant competition for knowledge translation and commercialization projects that engage partners and/or knowledge users. Visit the [Project Grant web page](#) for more information.

Update on 2015 Foundation Live Pilot Competition

The [summary of the results of Stage 1](#) and an [update on Stage 2](#) of the 2015 Foundation Grant live pilot competition is now available on CIHR’s website.

CIHR media training for researchers

CIHR Communications branch is offering English or French media training from January to March 2016 to interested CIHR-funded researchers who would like to learn about traditional media. Facilitated by our media specialist and former reporter David Coulombe, this training will provide media relations tools (advice and pitfalls) as well as outreach strategies that researchers can use to communicate effectively with journalists. [To register](#).

Other Funding Opportunities

[IHSPR Article of the Year Award 2015-2016](#)

Nomination Deadline: February 16, 2016

One \$10,000 award is given annually to recognize ground-breaking health services and policy research.

[IHSPR Rising Star Award 2015-2016](#)

Application Deadline: February 26, 2016

This award is to support graduate students and post-doctoral Fellows and to recognize the research excellence and knowledge translation initiatives of these emerging health services and policy researchers at an early stage in their career.

Network for Canadian Oral Health Research (NCOHR) Funding Opportunities

NCOHR has an [open funding call](#) to support researchers in the preparation of research grant submissions at the national or international level. **No submission deadline.**

Currently open NCOHR Call for Proposals: [Summer Research Institute in Oral Health Research Methods](#)

Deadline: Feb 25, 2016

Featured Researcher

Dr. Maria Fernandes is the principal investigator on a research project titled "The characterization of MICL, a novel negative regulator of the immune response in arthritis." She and her co-investigator Philippe Tessier, were recently awarded a five year operating grant to support this project. CIHR - IMHA is pleased to profile her work in this issue of IMHA - On The Move!



Dr. Fernandes received her PhD in Biochemical Genetics from McGill University before pursuing postdoctoral training at Thomas Jefferson University in Philadelphia, Pennsylvania. There, she cloned two novel genes that code for proteins belonging to the C-type lectin family. According to Dr. Fernandes, "C-type lectins play important roles in the immune response. Fascinated by these receptors, I pursued a

second post-doctorate in inflammation during which I specialized in myeloid receptor signaling to eventually investigate the role of C-type lectin receptors (CLRs) in the immune system."

Her interest in CLRs and arthritis led her to develop her current research program at Université Laval, that focuses on unraveling the role of C-type lectin inhibitory receptors in gout and rheumatoid arthritis (RA).

The researchers' primary goal was initially to identify inhibitory receptors relevant to the pathogenesis of arthritis. Dr. Fernandes'

current research is based on the identification of the first inhibitory receptor, the myeloid inhibitory C-type lectin-like receptor (MICL, CEC12A), shown to be involved in the pathogenesis of gout and potentially RA. Out of this, she explains that, "Our observations indicate that MICL is a pivotal negative regulator of immune cell activation in the context of auto-inflammatory and autoimmune diseases."

Currently, the researchers do not fully understand the molecular mechanisms through which the MICL receptor functions, specifically how it signals inside the cell or what ligands bind it (endogenous and/or pathogenic). The significance of Dr. Fernandes' research lies in the fact that not all patients respond to biological drugs designed to target pro-inflammatory cytokines that cause chronic inflammatory disorders such as rheumatoid arthritis. Harmful side effects have been reported and the development of new and more effective drugs relies on a better understanding of the molecular pathogenesis of these disorders.

Research News

In keeping with CIHR-IMHA's mandate of supporting ethical and impactful research to enhance active living, mobility and oral health and to address the wide range of conditions related to bones, joints, muscles, connective tissue, skin and teeth, IMHA On the Move! strives to connect its community of stakeholders by sharing news. Please send your community's research news to the Institute Communications Project Officer.

Bone Health in Adolescents

Sarah West is an assistant professor of kinesiology at Trent University and an adjunct scientist at Sick Kids Hospital in Toronto. She has been researching the effects of bones broken during childhood and teenage years on long term bone health. Dr. West was recently interviewed on CTV- Canada AM about her research. According to Dr. West, "Your bones are living and growing tissue, and they're constantly undergoing change throughout your entire life. During childhood and adolescence, you're building bone at a very quick pace." During this time, Dr. West says we build "peak bone mass," which is "the most quantity of bone that you're ever going to have and the strongest bone that you're ever going to have." We achieve 80 to 90 percent of it between the ages of 18 to 20. She says it is important to maximize bone growth during childhood and adolescence to have the highest peak bone mass, "because it actually helps prevent things like osteoporosis later in life."

The MARROW Study

For the first time ever, a [University of Ottawa research team](#) launched a human investigation on board the International Space Station (ISS). This investigation is led by researchers from the Ottawa Bone and Joint Research Laboratory (BJRL) at the University of Ottawa, in [collaboration with the Canadian Space Agency \(CSA\)](#). In December 2015, the first astronaut's participation in the MARROW project began and will extend over the full six months while on board the ISS; the next participants are expected to arrive on the ISS in March 2016.

The [MARROW study](#) focuses on the biology of rehabilitation, specifically the impact of long-term microgravity exposure on the bone marrow content and activity. The astronauts' involvement will allow for the longitudinal study of the accumulation of bone marrow fat after having lived in microgravity for approximately six months and its impact on red and white blood cells function.

Astronaut data will provide unique insight into the bone marrow changes with microgravity, of first importance to astronaut health, especially when preparing the first habited mission to Mars. Findings will lead directly to exploring novel drug or physical countermeasures for prevention and treatment. Back on Earth, these results will benefit to people suffering from decreased mobility, the elderly, and hospital patient requiring rehabilitation after a long durations of bed rest.

The Bone and Joint Research Lab (BJRL) was founded in 1973 by Dr. Hans-Klaus Uhthoff, an orthopaedic surgeon, and remains, 40 years later, under his active guidance. Together with Drs. Guy Trudel and Odette Laneuville, the BJRL has been operational for over 20 years. Since that time, it has grown into a nationally and internationally recognized research program. The BJRL is located in the Faculty of Medicine at the University of Ottawa. Its research team currently leads three active research programs: rotator cuff repair; joint contractures; and the biology of rehabilitation.

Continued on page 4...

Cost a tipping point on knee surgeries

A study from Western University's Bone and Joint Institute could save the health-care system millions of dollars while also preventing some knee osteoarthritis sufferers from going under the knife. Previous Western-led research, published in 2008, showed arthroscopic knee surgery provided no extra benefit over non-operative care for sufferers of osteoarthritis. Rates of that surgery have declined in the last seven years; however, it remains one of the most common orthopaedic surgeries internationally. In response, Western researchers Jacquelyn Marsh, Trevor Birmingham and Robert Giffin conducted the first-ever trial-based analysis on the cost-effectiveness of such surgeries. Their goal was to augment the previous study on effectiveness with economic data comparing both surgical and non-surgical options. The study "Cost-effectiveness analysis of arthroscopic surgery compared with non-operative management for osteoarthritis of the knee" was recently published in the [journal BMJ Open](#). For more information, please visit the [Western University newspaper website](#). This study was supported in part by CIHR.

Canadian takes lead at global health research alliance

Dr. Alain Beaudet was recently recognized in the [Embassy newspaper](#) for taking the lead to get more countries on board to help fight chronic diseases. As the current president of CIHR, Dr. Beaudet was recently elected chair of the Global Alliance for Chronic Diseases. The alliance consists of some of the world's largest public research funding agencies which began working together about seven years ago to fund joint research activities into lifestyle-related or chronic illnesses such as diabetes, lung or cardiovascular diseases. Populations of research focus include low and middle-income countries and vulnerable populations including Canadian Aboriginal communities.

Meetings of Interest

[Pacific Dental Conference](#)

March 17-19, 2016 Vancouver, BC

[10th International Congress on Autoimmunity](#)

April 6-10, 2016 Leipzig, Germany

[Canadian Bone and Joint Conference](#)

April 8 – 9, 2016 London, Ontario

[5th Annual Canadian Human and Statistical Genetics Meeting](#)

April 16-19, 2016 Halifax, NS

[Sparkling Population Health Solutions: Research for a Healthier Future – An International Summit](#)

April 25-28, 2016 Ottawa, Canada

[10th World Biomaterials Congress 2016](#)

May 17-22, 2016 Montreal, QC

[8th World Congress of the World Institute of Pain](#)

May 20-23, 2016 New York, New York, USA

[Canadian Pain Society Annual Scientific Program](#)

May 24 – 27, 2016 Vancouver, BC

[12th International Conference on Brain Energy Metabolism \(ICBEM\)](#)

May 25 – 28, 2016 Hong Kong

[22nd Canadian Connective Tissue Conference 2016](#)

June 1 – 3, 2016 Hamilton, ON

[Canadian Student Health Research Forum](#)

June 7 – 9, 2016 Winnipeg

[2016 Canadian Orthopaedic Association \(COA\) Annual Meeting](#)

June 16-19, 2016 Québec City, QC

IMHA On the Move! 4

Research study will allow Ontario construction firms to benchmark workplace safety

The Institute for Work & Health (IWH) is a not-for-profit research organization based in Toronto, which is currently conducting research into the policies and practices of construction firms in the province's ICI sector. The research involves contacting a random sample of both large and small firms from the sector, and asking the person knowledgeable about the firm's occupational health and safety and disability management programs to take a 10-minute survey. The researchers hope to gather data from at least 600 construction firms in Ontario's ICI sector. At the end of the study, participants will receive a report benchmarking their firm's OHS policies and practices with other participating construction firms in the province. The report can be used to identify strengths and weaknesses in a firm's OHS program, potentially pointing to areas of improvement that, if addressed, may reduce workplace injuries and illnesses. IWH will be conducting the surveys until the end of March 2016. Please visit the [study website](#) for more information.

Systematic review shines light on challenges in implementing and enforcing Occupational Health and Safety laws

Regulators across many different jurisdictions face considerable challenges introducing and implementing worker health and safety protection measures. A systematic review of qualitative studies on enforcement by IWH highlights some of the common challenges. That systematic review is now available as an open access paper in the [Scandinavian Journal Work, Environment and Health](#). A summary of the systematic review was also published in the fall issue of IWH's quarterly newsletter, *At Work*. Read the summary in [At Work](#).

A New Year, A New Conversation



Dr. Hani El-Gabalawy, CIHR-IMHA Scientific Director, chats with Canadian Minister of Health, Dr. Jane Philpott and Dr. Alain Beaudet, CIHR President, at the CIHR Holiday Reception on December 18, 2015.

[9th International Scientific Conference on the Prevention of Work-Related Musculoskeletal Disorders \(PREMUS2016\)](#)

June 20-23, 2016 Toronto, Canada

[16th World Congress on Pain](#)

September 26 – 30, 2016 Yokohama, Japan