



Institute of Musculoskeletal Health and Arthritis Newsletter: September 2014

# IMHA - *On the Move!*

## A Message from the Scientific Director



Arthritis is a painful and debilitating illness affecting over 4.6 million Canadians. September is designated as Arthritis Awareness Month in Canada to bring attention to this disease. As the Health Research Institute charged with the task of supporting and fostering research into this, among many other disorders, we consider it most important to share information this month about the latest research on Arthritis happening

in Canada today.

In this issue we feature projects from the [Arthritis Research Centre of Canada](#), and highlight recent success stories published in [Celebrating the Impact of Health Research](#). We also shine a light on two research projects on Scleroderma. [The Arthritis Society](#) is launching a video series this month called 'Voices of Arthritis' featuring well-known Canadians telling their arthritis stories including the likes of veteran news anchor Lloyd Robertson, and Olympic silver medal skier Kelsey Serwa, plus others.

The the Chair of our Institute Advisory Board (IAB), [Monique Gignac](#) brings greetings, and we welcome new IAB member,

[Dawn Richards](#), who not only lives with arthritis herself but is also a researcher and patient advisor. We say farewell to our Winnipeg-based Assistant Director, Jodi Cullum, wishing her well on her future endeavours as we welcome our new AD, Nicole Szajcz-Keller who brings with her a background of physical education, biomechanics, and project management.

Please note that many [CIHR Funding Opportunities](#) are still accepting applications with deadlines approaching, including Clinician-Scientist Training Awards, Fellowships, and New Investigator Salary Awards.

Please submit any questions or comments to [IMHA@cihr-irsc.gc.ca](mailto:IMHA@cihr-irsc.gc.ca) and follow me on Twitter [@HaniElgablawy](#).

Sincerely,

Hani El-Gabalawy MD FRCPC  
Scientific Director

CIHR Institute of Musculoskeletal Health and Arthritis

## A Message from the IAB Chair



On behalf of the IMHA Institute Advisory Board I would like to take this opportunity to say hello to you, our stakeholders, our community of researchers, patients, patient advocates, health care providers, health policy makers, and anyone with an interest in musculoskeletal, skin and oral health, and arthritis.

As we have been working toward developing IMHA's new Strategic Plan for 2014 – 2018 (to be launched at the end of October), we have been struck with how diverse our community is. My fellow Board members and I had the distinguished honour of being involved in the consultation process for the Strategic Plan and had the pleasure of meeting

and working with community members from a wide variety of disciplines. It was a very enlightening experience to sit at a table with basic scientists, rheumatologists, dental health professionals, kinesiologists and physiotherapists, and clinicians and clinician-scientists, not to mention patient representatives and patient advocates who have lived with the illnesses or who support people living with the illnesses for which our Institute works hard to raise awareness and fund research.

Though the members of our community are all working on different areas of health research, the partnerships and collaborations formed can lead to groundbreaking work. But, to move forward, we need to talk with each other. This is why we

*(Continued on page 2...IAB Chair's Message)*

# Funding Opportunities and Research News

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



## CIHR Funding Opportunities

CIHR has announced new Funding Opportunities for general awards including Clinician-Scientist and New Investigator Salary and Training awards, Fellowships,

Operating Grants, and Travel awards. Please visit the [CIHR Funding Opportunities webpage](#) for a full listing.

## IAB Chair's Message *(Continued from page 1)*

at IMHA are approaching our next five years with the intention of expanding our horizons, looking to encourage collaboration in both multidisciplinary and international ways.

Internationally, we have had the pleasure of working with researchers and health policy professionals from as near as the United States and as far as Australia. Where health is concerned, there are no borders, and we all can learn from each other.

Last May, the IMHA Board shared some of our meeting time with the Advisory Board of the [Institute of Nutrition, Metabolism and Diabetes \(INMD\)](#). One may wonder what we have in common, but there is a lot: poor nutrition affects bone and muscle development, as well as weight and health, which affect mobility and also can contribute to arthritis and osteoporosis; what people eat affects oral health, as well as skin health. Developing performance measurement criteria is also a primary focus for IMHA and other Institutes. We appreciated the opportunity to share insights and experiences with the INMD Board members who are going through similar developments with their strategic planning.

Thank you for being a part of the IMHA community and we encourage you to join IMHA in its efforts to seek out partnerships and opportunities to collaborate across disciplines and across borders to conduct research that will improve the lives of Canadians. Please visit the [IMHA website](#) for more information about becoming more involved with IMHA.

Best wishes with all of your endeavours,

A handwritten signature in black ink, reading "Monique Gignac".

Monique Gignac, PhD  
Chair, Institute Advisory Board  
CIHR Institute of Musculoskeletal Health and Arthritis



## Research News: The Arthritis Society

The [Arthritis Society website](#) is overflowing with news about research on Arthritis. Please visit the "What's New in Research?" page for

information on how the Society has partnered with researchers and to read research summaries.

IMHA is pleased to have supported the [Models of Care in Arthritis project \(MOCA\)](#), which is aimed at improving care for people with arthritis.

The Arthritis Society is launching 'Voices of Arthritis' this month, a video series featuring well-known Canadians from different walks of life telling their arthritis stories including media personalities Lloyd Robertson and Richard Turcotte, and Olympic athletes Kelsey Serwa and Amy Cotton, plus others.

## Pre-Announcement:

### eHealth Innovations Partnership Program (eHIPP)

Funding Launch: **September 2014**

Registration Deadline: **February 3, 2015**

Application Deadline: **April 1, 2015**

Anticipated Funding Start: **July 1, 2015**

This September, the Canadian Institutes of Health Research (CIHR) will launch the [eHealth Innovations Partnership Program \(eHIPP\)](#), a collaborative funding opportunity designed to create a new generation of cost-effective patient- and population-centered health care solutions.

eHIPP will support partnerships between Canadian health technology companies and 'innovation communities' – local/regional healthcare delivery settings, such as hospitals, communities, school boards/post-secondary institutions – to co-design and integrate innovative eHealth solutions that deliver real-world health care value.

### Support for Partnership Development

To facilitate the formation of partnerships between [innovation communities](#) and [health technology companies](#), a series of regional workshops will occur during the fall and winter of 2014. Webinars will also be held during this timeframe to provide information for prospective applicants to enhance the competitiveness of their applications.

### REGISTER NOW!

[General Info Webinar \(EN\)](#)

**Monday September 29, 2014 2:00 pm - 4:00 pm (EDT)**

[General Info Webinar \(FR\)](#)

**Tuesday October 14, 2014 10:00 am - 12:00 pm (EDT).**

Please contact Suzanne Hood ([shood.ihspr@mccgill.ca](mailto:shood.ihspr@mccgill.ca)) for more information.

## Featured Research: September is Arthritis Awareness Month

*With so many Canadians living with arthritis, it has never been more essential to raise awareness of this painful and debilitating disease. We are pleased to highlight here, summaries of recent research supported by CIHR-IMHA, being done on arthritis, an inflammatory chronic disease that manifests in many forms affecting so many of us in our daily lives.*

### From the Arthritis Research Centre of Canada

#### **Does a Google a Day Keep the Doctor Away?**

Catherine Backman, Research Scientist, Rehabilitation Department Head, Occupational Science and Occupational Therapy University of British Columbia, Affiliated Researcher, Vancouver Coastal Research Institute Investigator, Canadian Arthritis Network

*(Supported by an Ethics Catalyst Grant through CIHR-IMHA)*

Patients want health care providers to use e-health resources more than they currently do. Health care providers like some e-health resources, yet worry about the burden of assessing the credibility of information sources and the time required to give good advice to the patient who arrives at the office visit with a stack of studies downloaded from the internet or wants advice via e-mail. People living with arthritis often have multiple health conditions and need to navigate advice from many specialists and health care providers. This research documented the benefits and burdens associated with email, text messaging, mobile apps, electronic health monitoring devices, and Google searches for health information. Because e-health technology is rapidly evolving, in order to make sense of these data, researchers applied an ethical framework that will withstand advances in technology. Now they are using the ethical framework to design learning tools to help health care professionals choose and use e-health resources safely, effectively, and ethically to enhance their communication with patients and improve health.

#### **Making It Work**

Diane Lacaille, Senior Research Scientist, Rheumatology, Mary Pack Chair in Rheumatology, Professor, Division of Rheumatology, Department of Medicine, University of British Columbia MD, MHSc, FRCPC

*(Supported by an Operating Grant and a Knowledge Translation Supplement through CIHR-IMHA and the Knowledge Translation Branch)*

This research is a natural extension of previous studies on Work Disability (WD), which led to the development of a novel intervention to help people with inflammatory arthritis maintain employment. The program Making It Work, was created to improve an aspect of disease management that is too often ignored by health care professionals – the management of employment issues. It fills an important gap in the health care services available for people with arthritis, and has a great potential for improving quality of life and reducing the large indirect cost of arthritis. Researchers converted the self-management program into a web-based program so that the benefits can be offered to a larger number of people with RA.

For the program to be implemented widely, further testing is necessary to demonstrate its effectiveness at preventing work cessation and improving at-work productivity loss. In this study, researchers will use a randomized controlled trial design to test the effectiveness and cost-utility of the web-based program compared to a control group receiving usual care.



Arthritis Research Centre of Canada  
Arthrite-recherche Canada

Leading research.  
Finding answers.  
Saving lives.

Orienter la recherche.  
Trouver des réponses.  
Sauver des vies.

This program combines the benefits of group sessions focused on improving self-management, with assessments by health professionals specifically addressing employment. The web-based technology for program delivery is at the leading edge of trends in the field of adult education and self-management.

#### **Being active is good, sitting too much is bad – We put this in action**

Linda Li, Senior Research Scientist, Clinical Epidemiology, Harold Robinson Chair / Arthritis Society Chair in Arthritic Diseases, BSc(PT), MSc, PhD, Associate Professor, Department of Physical Therapy, University of British Columbia

*(Supported by a Catalyst Grant: eHealth Innovations through CIHR-IMHA)*

To stay healthy, Health Canada recommends at least 150 minutes per week of moderate physical activity for adults. However, a sedentary lifestyle is becoming increasingly common worldwide. Arthritis Research Centre Scientist Linda Li surveyed over 1,700 British Columbians with hip and knee osteoarthritis and found less than half of them walked more than an hour a week, even among people with mild symptoms.

Many arthritis patients avoid physical activity because of the fear of damaging the joints and worsening the pain. To target this barrier, Linda's team will test a new model that uses wearable activity trackers to help doctors and physiotherapists to counsel patients how to be active safely. Wearable activity trackers, like Fitbit, are popular devices that can motivate people to walk more and sit less. Linda's research will look at different ways for health professionals to integrate these types of tools into regular clinical practice.

#### **Addressing Medication Matters in Arthritis**

Mary De Vera, Research Scientist, Pharmacoepidemiology, MSc, PhD, Assistant Professor, Pharmaceutical Sciences, University of British Columbia

*(Supported by a Planning Grant through CIHR-IMHA)*

People living with arthritis rely on medications to relieve symptoms, prevent the disease from worsening or complications from occurring, and allow them to participate in daily activities. However, non-adherence is an important problem in arthritis as it is in other chronic diseases, with the World Health Organization reporting that only about half of patients adhere to medications. Using population-based health data in BC, this research showed that RA patients who stop taking statins have an 80% higher risk of death compared to those who continue taking

*(Continued on page 4...Medication Matters)*

## From **Celebrating the Impact of Health Research**: story summaries

### ***Treatment on a silver platter: the role of platelets in rheumatic diseases***

Eric Boilard PhD, Centre de Recherche en Rhumatologie et Immunologie, CHU Research Center, Faculté de Médecine de l'Université Laval

#### **The problem**

Platelets, which help stop bleeding by encouraging the formation of blood clots, also have an immunological function.

#### **The solution**

Learning how platelets, and microparticles shed from their outside, affect the development of rheumatoid arthritis.

#### **The impact**

The knowledge gained could lead to the development of new treatments for rheumatoid arthritis and other rheumatic disorders and (auto) immune diseases.



### ***It's all relative: early detection of rheumatoid arthritis in First Nations***

Hani El-Gabalawy MD FRCPC, Professor of Medicine and Immunology and Endowed Rheumatology Research Chair, University of Manitoba

#### **The problem**

First Nations people are more susceptible to rheumatoid arthritis (RA) than the general population.

#### **The solution**

Study First Nations people with RA and their first-degree relatives to learn how to detect the disease earlier.

#### **The impact**

Reduce the catastrophic impact of RA through early detection – and, one day, possibly prevent the disease altogether.

### ***A better way to restore knee cartilage***

Caroline D. Hoemann PhD, Department of Chemical Engineering and Institute of Biomedical Engineering, École Polytechnique

#### **The problem**

Repairs to knee cartilage are effective in the short term, but in many patients, do not last more than two-to-three years.

#### **The solution**

Develop a bio-engineered blood clot to create a more lasting cartilage repair.

#### **The impact**

The BST-CarGel® implant has been approved for use in Europe; approval in Canada is pending.

### ***Seeing the patient in front of them: addressing physicians' contributions to gender disparity in total joint replacement***

Cornelia M. Borkhoff PhD, Department of Health Policy, Management and Evaluation, University of Toronto, Women's College Research Institute, Women's College Hospital

#### **The problem**

Physicians are less likely to recommend joint replacement surgery for hip and knee osteoarthritis to women versus men.

#### **The solution**

Investigate the role of unconscious gender bias in influencing physicians' treatment decisions.

#### **The impact**

Tools that improve patient-physician communication and help physicians overcome biases will ensure that all patients have the same opportunity to benefit from surgery.

### ***A randomized trial of arthroscopic surgery for osteoarthritis of the knee***

Alexandra Kirkley MD, Fowler Kennedy Sport Medicine Clinic and Department of Surgery, University of Western Ontario

#### **The problem**

A lack of evidence for a common surgical treatment for osteoarthritis of the knee.

#### **The solution**

A randomized controlled trial to determine the effectiveness of the surgery.

#### **The impact**

Changes in clinical practice to use other treatments for early-stage osteoarthritis of the knee.

### ***Peer to peer mentoring in early inflammatory arthritis***

Dawn Richards PhD, Canadian Arthritis Network Consumer Advisory Council

#### **The problem**

People newly diagnosed with inflammatory arthritis need support.

#### **The solution**

Train people living with inflammatory arthritis to act as peer mentors.

#### **The impact**

Evidence of the effectiveness of peer mentors is providing a new dimension in rheumatology care.

#### **Medication Matters** (Continued from page 3)

statins. Adherence is also particularly problematic in gout, the only arthritis where there are medications that can "cure" the condition.

This research found that less than half of gout patients adhere to their medications, with the proportion of adherent patients as low as 10% and only as high as 46%. This fall, Dr. De Vera is launching focus groups with arthritis patients to gain better understanding of their perspectives and experiences with taking their medications and to obtain their feedback on what adherence interventions they would like to see. This study arose out of consultations with the Arthritis Research Centre of Canada's Patient Advisory Board. She is also launching a study to evaluate whether multi-disciplinary care involving rheumatologists, pharmacists, and dieticians, supported by shared electronic medical records, will help improve adherence among gout patients.

(Continued on page 5...Exercise is fun?)



## A Tale of Two Scleroderma Studies

Abstract summaries of *recently-funded* rare disease projects

### Social anxiety from disfigurement due to medical illness: From assessment to intervention

PI: Lisa R. Jewett

Disfigurement from medical illness has been linked to mental health problems. Interventions addressing these problems focus on reducing discomfort in social situations. No studies, however, have looked at how common it is for people with disfigurement from illness or injury to experience clinical levels of anxiety in social situations. Systemic sclerosis (SSc), or scleroderma, is a rare, chronic illness that frequently leads to visible appearance changes and extensive skin disfigurement.

The goal of this project is to determine how often people with SSc experience clinical levels of anxiety in social situations, to examine what factors are associated with these feelings, and to develop and pilot test an online intervention to help them manage distress related to their body image concerns, including anxiety in social situations.

This project is the first time such issues have been examined among people with disfigurement from a medical illness, and it constitutes an important step towards increasing public awareness as well as improving the mental health of these individuals.

### Improving the validity of treatment effect estimates from observational data of uncommon diseases: The scleroderma lung transplant survival model

PI: Sindhu R. Johnson

Scleroderma (also called Systemic Sclerosis (SSc)) is a disease that can affect the skin, joints and internal organs (heart, lungs, kidneys). There is no cure. The leading cause of death for Canadians with SSc is end-stage lung disease from high pressure in the lungs called pulmonary arterial hypertension (PAH), or scarring of the lungs called interstitial lung disease (ILD). Lung transplant may be a cure for SSc lung disease, but it has potential risks (infection, recurrence of SSc in the new lung or death). Whether lung transplant improves survival is not known. Using a novel research approach, this series of three studies will evaluate if lung transplant improves survival in this deadly disease, and will develop innovative research methods for all researchers who study rare diseases.

(Continued from page 4)

### Exercise is fun? You're kidding – right?

Dr. Tony Szturm, Associate Professor, Department of Physical Therapy, University of Manitoba

#### The problem

Difficulty performing everyday activities for people with arthritis of the hand.

#### The solution

A computer game-like rehabilitation platform that provides therapy and measures outcomes at the same time.

#### The impact

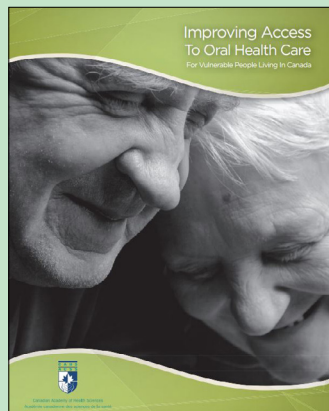
People with arthritis of the hand can regain mobility and strength to carry out everyday tasks and participate in the activities of daily life.

## Partner Corner



The Canadian Academy of Health Sciences (CAHS) has published the report [Improving Access to Oral Health Care for Vulnerable People Living in Canada](#). The report concludes a

three-year evaluation by a multi-disciplinary CAHS panel into the issue of access to oral health care among vulnerable groups in Canada. Core problems identified in the report are:



- Vulnerable groups living in Canada have both the highest level of oral health problems and the most difficulty accessing oral health care; and
- The public and private oral health care systems in Canada are not effective in providing reasonable access to oral health care for all vulnerable people living in Canada.

Recommendations to address these core problems include:

- Communicate with relevant stakeholders concerning the core problems raised in the report.
- Establish appropriate standards of preventive and restorative oral health care to which all people living in Canada should have reasonable access.
- Identify the health care delivery systems and the personnel necessary to provide these standards of oral health care.
- Identify how provision of these standards of preventive and restorative oral health care will be financed.
- Identify the research and evaluation systems that monitor the effects of putting these recommendations into place.

IMHA's mandate, of supporting oral health projects includes the oral health exemplar area of the [Pathways to Health Equity for Aboriginal Peoples](#) CIHR Signature Initiative. The **Application Deadline** for [Pathways Implementation Research Team Grants](#) is **October 15, 2014**.



**John O'Keefe, The Canadian Dental Association's Director of Knowledge Networks and Chair of the Organization for Safety, Asepsis and Prevention (OSAP)**, guest authored a column for the Centers for Disease Control and Prevention (CDC) website on Injection Safety and Healthcare-associated infections. Please read [Moving the Needle to Safe Dentistry](#)

here, regarding the CDC's One & Only Campaign and the importance of safe injection practices in all areas of health care, including dentistry.

# Welcome to IMHA



## **Dawn Richards, PhD** Science and Patient Consultant

As both an academic researcher and a person who lives with rheumatoid arthritis, [Dawn Richards](#) brings to IMHA's IAB, a valuable background with both a scientist and patient perspective.

Dawn received her PhD in Analytical Chemistry from the University of Alberta, and has spent the past 15 years in various roles as a bench scientist, project and operations manager, technology transfer and commercialization manager, and business development officer. She has worked in biotech as well as in the not-for-profit and academic sectors. Her scientific training, on the job experience in business-related roles, and her experience as a person who lives with a chronic disease put her in a unique position to both inform and help researchers, clinicians, and pharma to translate discoveries and products into meaningful outcomes from which the public will benefit.

Since being diagnosed with rheumatoid arthritis nearly a decade ago, Dawn has become a vocal advocate for arthritis awareness, access to treatment, the inclusion of patients in decision-making and as research collaborators, and the importance of research. She is currently Vice President of the Canadian Arthritis Patient Alliance and Patient Advisor to the Canadian Medical Association's Wait Time Alliance.

## **Nicole Szjacz-Keller, MSc** Assistant Director, IMHA

Nicole Szjacz-Keller is a renaissance person, balancing pursuits of art, science, and physical activity in her education, and occupational and recreational life. With a Bachelor of Physical Education and a Master of Science in Biomechanics, both degrees being from the University of Manitoba, she has a strong quantitative and qualitative research background. While in university, she was involved in studies including sports injuries and mechanics of daily life activities in persons living with arthritis. Nicole has over 10 years of experience working as a Senior Research Associate with Prairie Research Associates Inc., and has been a project manager for private, non-profit and government clients. Regarding work for government bodies, she has worked on projects for Manitoba Health, Health Canada, and the Public Agency of Canada.

Academically-speaking, Nicole is passionate about teaching children and youth about Manitoba's history, having worked for 18 years at the Manitoba Museum in their Sleep Over Program. Holding up her end of IMHA's physical activity mandate, Nicole has been actively involved in the Rowing Community through the Winnipeg Rowing Club for the past six years, having served as the Club Manager for the past two years. Rounding out the balance, she is a mixed media artist with particular interest in the textures and abstract qualities of the world around us.

## Share your news with the IMHA community

Do you have a story that has helped sustain health and enhance quality of life by eradicating the pain, suffering and disability caused by arthritis, musculoskeletal, oral and skin conditions? Are you planning an event that might be of interest to the IMHA community? Is your organization launching a funding opportunity? IMHA would like to celebrate our partners' and stakeholders' success stories, events, and funding opportunities in our monthly newsletter. Please make your submissions to [IMHA@cihr-irsc.gc.ca](mailto:IMHA@cihr-irsc.gc.ca). We look forward to sharing your information with the IMHA community!

### Contact Us

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## Meetings of Interest

[Canadian Society for Exercise Physiology Annual Meeting](#)  
October 22-25, 2014 St. John's, NL

[Quebec Rheumatology Association](#)  
October 23-25, 2014 Quebec, QC

[American Osteopathic Academy of Orthopedics  
2014 Annual Meeting](#)  
October 23-25, 2014 Rancho Palos Verdes, CA

[Arthritis Alliance of Canada 2nd Annual Conference and  
Research Symposium](#)  
October 30 – November 1, 2014 Toronto, ON

[Nurse Practitioners' Association of Ontario Annual  
Conference](#)  
November 6- 8, 2014 Hamilton, ON

[American College of Rheumatology Annual Meeting](#)  
November 14-19, 2014 Boston, MA