



Institute of Musculoskeletal Health and Arthritis

IMHA *On The Move!*

Summer 2006 | Volume 4 | Number 1

Advancing the Science of Arthritis, Rehabilitation, Bone, Muscle, Skin and Oral Health

<http://www.imha.cihr.gc.ca>

SCIENTIFIC DIRECTOR'S CORNER

Why Do Knowledge Translation and Exchange?



Dr. Cy Frank, Scientific Director

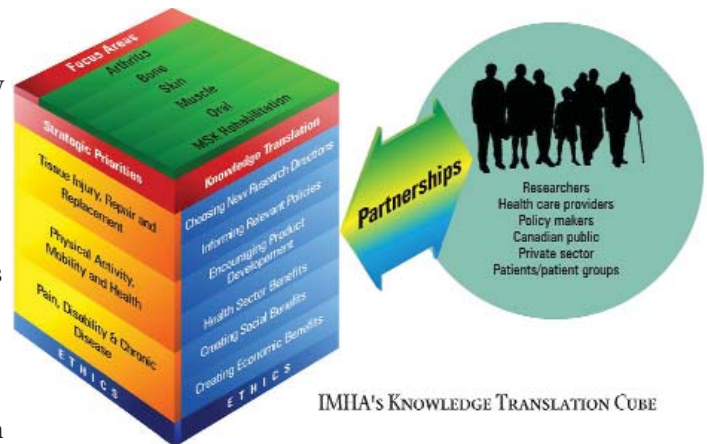
There seems to be a lot of buzz lately in the research community about knowledge translation and exchange or KTE, also referred to as knowledge transfer or KT. And it's got a number of health researchers scratching their heads. What's all the hoopla about anyway?

Actually, KT(E) isn't new. In June 2000, when the Government of Canada established the Canadian Institutes of Health Research (CIHR), the legislation stated that CIHR's aim was to

INSIDE THIS ISSUE

Scientific Director's Corner	1
Research Highlights	2
SIRC Awards	2
Short-term Visits	3
STIHRing Issues	4
External Review Panel	4
What's New at NIH	4
Letters to the Editor	4

excel in the creation of new knowledge and to translate it to real-world applications. The practice of KTE has been chugging along ever since—sort of. The reality is there remains a gap between the research priorities of patients and volunteer organizations, new knowledge created by researchers, and translation of this knowledge into improved health-care products and services.



IMHA'S KNOWLEDGE TRANSLATION CUBE

Why is KTE important?

Surveys repeatedly show that health care is a priority for Canadians. The economic burden of musculoskeletal conditions tops \$16.4 billion annually. Add to that the \$6 billion yearly of oral health, and it becomes clear as to why it's important to communicate new research knowledge. Not only will this research work to improve health outcomes by helping patients and health care providers, but Canadian health care costs should also begin to see reductions.

Why include a KTE component in funding applications?

KTE is enshrined in CIHR legislation and as an Institute we must engage in it. Scientific knowledge may have real-world applications sooner than researchers think, and we have begun to incorporate KTE into our research process. As of June 2006, our RFAs will offer bonus funding of up to \$25,000 for developing and implementing a KTE proposal. We also launched an RFA on Community Alliance in Health Research in KTE on pain, and we are developing a KTE workshop program for IMHA's STIHR centres and/or other interested training centres. The workshop will eventually be available to all research communities. IMHA looks forward to encouraging researchers to disseminate new knowledge to benefit the health of Canadians. ■

Alphabet Soup

- KTE Knowledge Translation and Exchange
- KETF Knowledge Exchange Task Force
- STIHR Strategic Training Initiatives in Health Research
- NIH National Institutes of Health
- RFA Request for Application
- MOU Memorandum of Understanding
- SIRC Sport Information Resource Centre

The latest in IMHA-related physical activity research

Physical activity, mobility and health are priorities this year for IMHA. To date, IMHA has invested 9% – or approximately \$720,000 – of its annual strategic funding in research related to physical activity and mobility. We are aiming to increase this investment to about 1/3 of strategic funding by 2008.

Preventing soccer injuries now will help prevent osteoarthritis later

A randomized controlled trial of a prevention strategy for severe knee injury in youth soccer

Dr. John M. Esdaile, Team Leader
Funding amount and type:
\$99,909, 1-year Team Planning & Development Grant

Organization
The Arthritis Research Centre of Canada

Research Team
Mariana J. Brussoni, Robyn A. Cairns, Jolanda Cibere, Maura D. Iversen, Phillipp Lang, Matthew H. Liang, Donna Macintyre, Anona Elaine L. Thorne, David Robert Wilson, Stephen J. Tredwell.

Dr. John M. Esdaile, Professor of Medicine at the University of British Columbia and Scientific Director of the Arthritis Research Centre of Canada in Vancouver, is leading a team that is developing and testing an osteoarthritis prevention program to reduce the number of injuries by about 25% in young soccer players. “Soccer is great exercise and, given Canada’s rising incidence of obesity – another osteoarthritis risk factor – we want to encourage physical activity among our youth,” says Dr. Esdaile. “But we want to be sure that physical activity itself won’t lead to osteoarthritis.”

The research team will train coaches to use proper warm-up methods targeting flexibility, stretching, power and agility drills, skill techniques to avoid injury, and rehabilitation.

Dr. Esdaile’s research received national media coverage thanks to the strong public interest in soccer due to the World Cup. IMHA was proud to gain exposure across Canada through stories in more than 20 newspapers. In fact, the story received more coverage than any CIHR story ever published! ■

SIRC Awards

The Sport Information Resource Centre (SIRC) aims to collect, archive and share qualified sport information with sport enthusiasts in Canada and around the world. SIRC actively encourages academic and sporting excellence through various awards at the university, college, high-school and elementary levels.

As a SIRC Research Award partner, IMHA helps to recognize outstanding sport research in Canada and acknowledge how it benefits the Canadian sporting community. This year’s SIRC Research Award winners were Petra McDowell, a University of New Brunswick PhD student (“Evaluation of Pain Appraisals and Coping Styles among Athletes Dealing With Training-Related Pain”), and Janelle Joseph, a PhD candidate at the University of Toronto (“A Perfect Match: Brazilian Martial Arts and the Canadian Multiculturalism Act”). ■

Helping Athletes Deal With Pain

The Impact of Applied Research on Athletic Excellence - High Performance Category: “Evaluation of Pain Appraisals and Coping Styles among Athletes Dealing With Training-Related Pain”

Petra Kopka McDowell,
Ph.D. Student, 2005 SIRC Award Winner

Because pain is a common experience for athletes, Petra’s goal is to identify which pain appraisal and coping strategies benefit athletes and how the strategies can be fostered in young athletes, to provide them with the tools they need to excel in their sport.

Organization: University of New Brunswick
Supervisor: Dr. Diane LaChapelle, Clinical Psychology

IMHA sends Donna Lee Dinnes “Down Under”

Macrophage-mediated polyurethane degradation: a proteomic approach to biomaterials research

IMHA was proud to award one of its first short-term research visits to Donna Lee Dinnes, who traveled to Sydney, Australia, to collaborate with a research group at the University of New South Wales (UNSW). From January to April 2005, Dinnes conducted research with Dr. Stephen Mahler of the Bioengineering Centre at UNSW in conjunction with the research group at the UNSW Bioanalytical Mass Spectrometry Facility.

Dinnes’ PhD thesis focuses on assessing the inflammatory response to implanted biomaterials, and the research conducted during her visit involved looking at changes in the overall protein profile of human macrophages in response to various material surfaces. An article based on the research will soon be published in the *Journal of Biomedical Materials Research*, likely by late 2006.



Donna Lee Dinnes travelled to Sydney, Australia, for a short-term research visit.

“I would highly recommend a short-term research visit to any scientist. It really opens your eyes to the other areas of research that are out there,” says Dinnes, who is back in Sydney at UNSW after being awarded another research scholarship through the Endeavour Fellowship Programme run by Australia’s Department of Education, Science and Training.

Dr. Herenia Lawrence visits New Zealand

Oral health and quality of life among adults in Canada and New Zealand

Dr. Herenia Lawrence, another participant in IMHA's short term visit program, spent May-August 2005 in Dunedin, New Zealand, at the University of Otago's Faculty of Dentistry.

Dr. Lawrence conducted collaborative work with Prof. W. Murray Thomson on the impact of oral diseases on the quality of life of adult participants in a multidisciplinary cohort study

conducted in Dunedin. This work led to an abstract that was presented at the 2006 Annual Meeting of the American Association for Dental Research in Orlando, Florida. Two papers have been drafted for publication and Dr. Lawrence gave two presentations while still in NZ: one about the work conducted using the Dunedin study data and the other on dental health services research in Canada for an audience of hospital and community dentistry specialists.

"I plan to put the knowledge gained and the new concepts learned from working with the Dunedin study data into practice to further my research into oral health care of vulnerable populations in Canada," says Dr. Lawrence.



Dr. Herenia Lawrence visited New Zealand on a short-term research visit.

The low-down on short-term visits

The Short-Term Visits Program allows developing or established researchers to spend up to 3 months in a specific location focusing on the acquisition of new concepts, knowledge, or techniques to broaden their research perspectives and skills in one of IMHA's focus areas: arthritis, bone, skeletal muscle, skin, MSK rehabilitation and oral health. To learn about how to apply for short-term visits, visit <http://www.cihr-irsc.gc.ca/e/23932.html> ■

STIHRing Issues

This year's Strategic Training Initiatives in Health Research (STIHR) meeting - the second annual- of the 12 IMHA-related Strategic Training Centre directors, held in Ottawa on May 24, 2006 saw the addition of two trainees from each of these STIHR in Health Research centres for what was a combination of dynamic presentations and lively discussion. Two presentations, one by IMHA's Scientific Director, Dr. Cyril Frank, the other by Dr. Peter Tugwell, coordinating editor of the Cochrane Musculoskeletal Group, focused on the value of including a knowledge translation and exchange component in funding applications. Dr. Tugwell also explained the six-step Ottawa Model of Research Use and how it could be used to develop a KTE component.

These presentations were rounded out by presentations on other key concepts, including, transdisciplinarity, research ethics, mentoring models and sustainability by Dr. Richard Ellen, Dr. Richard Singleton, Dr. Jocelyne Feine and IMHA's Dr. Louise Desjardins. Following each talk, participants broke out into small groups to brainstorm and provide feedback on questions and challenges raised in each session.

Dr. Frank concluded the one-day meeting by addressing a variety of issues raised by the trainees as well as steps that IMHA will implement to maximize their training. ■

External Review Panel

The *CIHR Act* specifies that CIHR will undergo a review of its mandate and performance every 5 years. For its first-ever External Review, CIHR assembled a 27-member International Review Panel made up of some of the world's pre-eminent researchers. In early 2006, Panel members met with more than 100 investigators, university and government leaders, industry partners, health charities and the provinces, and CIHR management and staff. Panel members were also provided evaluations of each of CIHR's Institutes, surveys of funded and non-funded researchers and 270 submissions from across Canada. A review of each Institute was conducted and IMHA received a favourable evaluation that affirmed the Institute's relevance:

"The Institute continues to be relevant. There is almost unanimous agreement across interviewees that IMHA's mandate and strategic priorities are appropriate... Also, because musculoskeletal diseases account for 10% of the economic burden of illness in Canada... there continues to be a demonstrable need for IMHA."

Several recommendations for IMHA addressed consultation and communication, capacity building, planning, knowledge translation, contribution to CIHR's vision, and performance monitoring and reporting. To read the full review of each CIHR Institute, visit <http://www.cihr-irsc.gc.ca/e/31683.html> ■

What's New at NIH

There has been a lot of interest recently regarding bisphosphonate use. Bisphosphonates are a class of drugs used to treat cancer, osteoporosis and other conditions. While they had previously been considered safe, recent research shows they may be associated with a relatively rare but serious side effect: death of areas of bone in the jaw, or oral necrosis. In May 2006, the National Institutes of Health's National Institute of Dental and Craniofacial Research received clearance for a funding initiative to stimulate research to determine the pathophysiology and epidemiology of osteonecrosis of the jaw. For more information, please visit <http://www.nidcr.nih.gov/Funding/CurrentFundingOpportunities/RecentlyCleared/Bisphosphonate.htm>

The National Research Council's report on fluoride in drinking water was tasked to evaluate the scientific basis of EPA's MCLG of 4 mg/L and SMCL of 2 mg/L in drinking water and to make recommendations for future research relevant to setting those standards.

For more information on NIH, visit <http://www.nih.gov> ■

Letters to the Editor

Have an issue or question you'd like to raise? We invite you to send a letter to the editor: imha@cihr-irsc.gc.ca

Institute of Musculoskeletal Health and Arthritis
160 Elgin Street, 9th Floor, Address Locator 4809A
Ottawa, ON, K1A 0W9

Join the IMHA database

Register to receive news on funding opportunities, our newsletter and other updates!

imha@cihr-irsc.gc.ca