

Bringing Research to LIFE

In Brief

Caring to Know/ Knowing to Care

The Faculty of Nursing recently celebrated the re-branding of the former Manitoba Nursing Research Institute to the Manitoba Centre for Nursing and Health Research (MCNHR). The Caring to Know/Knowing to Care event recognized the contributions to healthcare knowledge resulting from nursing research. As part of the celebrations, the faculty's 2009 Dr. Helen Glass Researcher-in-Residence, Dr. Pamela Hinds, gave a presentation titled "Helping seriously ill children and their parents to voice end of life care preferences."

Directed by associate professor Diana Clarke, MCNHR promotes and supports the conduct, dissemination and uptake of collaborative nursing and health research. The name change, adopted in 2008, reflects a broader interdisciplinary focus on health research. The centre plays a key role in promoting nursing and health research throughout the province of Manitoba and beyond.

Upcoming

Public Presentation:

Vision for Diagnostic Imaging / Radiology

By: Dr. Cliff Levi

Tuesday, June 23, 2009

12:00 PM - 1:00 PM

Theatre B

Basic Medical Science Building

745 Bannatyne Avenue

Workshop:

Sensory and Instrumental Techniques for Measuring Food Flavor and Aroma

Friday, June 26, 2009

8:00 AM

Richardson Centre for Functional Foods and Nutraceuticals

For more information:
chengx@cc.umanitoba.ca

Marathons: Beyond the finish line

BY LAURA DICKIE

Marathon running requires a strong dedication to achieve that ultimate goal of crossing the finish line. Similarly, Davinder Jassal's goal of finding the key to heart failure using imaging technologies like cardiac magnetic resonance imaging (CMR), requires a strong dedication and innovative thinking.

Jassal, an associate professor of cardiology, radiology, and physiology; recently released findings of his study conducted at St. Boniface Hospital, showing marathon running causes short-term cardiac dysfunction but does not result in permanent heart muscle damage. The study is the first of its kind to use CMR to show cardiac abnormalities experienced by long-distance runners.

The study, funded by St. Boniface Hospital & Research Foundation, began last summer as 14 participants ran the full 2008 Manitoba Marathon. Runners ranged in age from 18 to 40 and were screened for pre-existing cardiovascular risk factors, such as diabetes, hypertension, smoking, elevated lipids, and a family history of premature coronary artery disease. All participants were healthy, considered amateur runners and underwent moderate training prior to the Manitoba Marathon.

Previous studies on the cardiac effects of running marathons have looked at biomarkers along with echocardiograms (ultrasound of the heart) to determine cardiac injury. This is the first study to also use CMR to show the extent of damage.

Participants underwent blood tests and CMR, prior to, immediately following, and one week after the marathon. Biomarkers used to identify cardiac stress were evaluated and found to be elevated in all athletes post-race. The echocardiograms and CMR post-



Submitted Photo

Davinder Jassal, Principal Investigator, Cardiovascular Imaging, Institute of Cardiovascular Sciences

race demonstrated both right and left ventricles of the heart showed changes in diastolic filling and a decrease in the pumping function of the right ventricle. However, the abnormal pumping function of the right ventricle completely resolved one week following the marathon.

"While it was previously thought that amateur athletes who train less prior to a marathon are more likely to experience elevated cardiac biomarkers, this study showed that even well-trained athletes demonstrate significant abnormal biochemical profiles," says Jassal. "The good news is the CMRs showed that there was no true, long-term cardiac damage, despite the elevated biomarkers – after a week of rest, the heart's pumping function returns to pre-marathon levels."

Jassal says that while this is a major

breakthrough in the use of CMR in understanding why cardiac biomarkers are elevated following a marathon, more research is needed to determine how much the heart can endure before long-term damage takes place. A second research study is planned for the 2009 Manitoba Marathon, in which Dr. Jassal will look at half-marathon runners. Future studies will look at multiple marathon runners.

Jassal advises, "If you are a novice planning to run a marathon, you should consider talking to your doctor first and training appropriately. A marathon isn't something you can just show up to, it puts considerable stress on your heart, and you should make sure you are in good shape before doing it."

The full study was published in the May 15, 2009 edition of the *American Journal of Cardiology*.

Community voices being heard

A photograph reflects reality in the moment and lasts a lifetime. More than a decade before the advent of MySpace and Facebook, researchers were using photography to facilitate community consultation with marginalized communities. Cindy Jardine, assistant professor, rural economy, University of Alberta explored the benefits, challenges and practicalities of Photovoice to eager listeners at the June 5 Department of Community Health Sciences Colloquium Series. The specific study she presented as an example of her own work with Photovoice explored the communication and understanding of health risks in northern Aboriginal communities.

Photovoice is defined as "a powerful participatory action research method where individuals are given an opportunity to take photographs, discuss them collectively, and use them to create opportunities for personal and/or community change." (Linnan et al., 2001)

In Jardine's study, she found that lifestyle risks such as the use of drugs, tobacco, alcohol, and poor nutrition were brought forward by participants. Other concerns included contamination of land and drinking water. She plans future research to answer the question of why these unhealthy behaviours are occurring, taking into consideration ethical concerns associated with risk communication.

Photovoice is being used by the Centre on Aging's Community-University Research Alliance, Age-Friendly Communities project, headed by the centre's director Verena Menec (community health sciences). Former postdoctoral fellow Toni Morris-Oswald used the technique in six communities in Manitoba, to investigate older persons' perceptions of 'what is age-friendly.'

Seniors in the focus groups go out in their communities (Carman, Dauphin, Thompson, Winnipeg) and take pictures of things that they feel

impact their quality of life. Roads and sidewalks that aren't cleared in winter and present a safety hazard for seniors, walk/don't walk lights at intersections with short intervals that make it difficult to cross the street before the light changes, are just a few of the findings so far. After taking the photos, the seniors discuss their findings and work to improve age-friendly conditions in their local communities.

Participatory research is a powerful tool in a researcher's toolbox. Beginning on Thursday, June 11, 2009 Verena Menec is asking Winnipeggers to participate by answering the question: **Is Winnipeg age-friendly? What do you think?** You don't need to be a senior to have your say. Think about what makes an age-friendly community and post a comment. **Go to one of the following websites and have your say:** <http://www.speakupwinnipeg.com/blog/> or <http://speakupwinnipeg.com/blog/archives.cfm/category/communities>

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