

# Bringing Research to LIFE

## In Brief

### Undergraduate Research Award

A new initiative of the VP (research and international) office will provide undergraduate students with an opportunity to experience research this summer at the U of M. This experience will be open to qualified, full-time undergraduate students in all areas of study. For further information visit: [umanitoba.ca/experienceresearch](http://umanitoba.ca/experienceresearch).

## Upcoming Events

### Critical Conversations: The Idea of a Human Rights Museum presents

Holodomor and Holocaust:

Taboos in

Ukrainian-Jewish Relations

Presented: Myroslav Shkandrij

**Monday, March 5, 2012**  
2:30 p.m. to 4:00 p.m.

Room 206, Robson Hall  
Faculty of Law  
University of Manitoba

Conceptual Art Broke the Museum: Who's inside, what's outside and why care?

Presented by: Paul Hess

**Monday, March 12, 2012**  
2:30 p.m. to 4:00 p.m.

Room 206, Robson Hall  
Faculty of Law  
University of Manitoba

For more information, contact  
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[www.chrr.info](http://www.chrr.info)

## Virtual medicine melts away miles

Researcher looks at how technology brings care to isolated communities



Photo by Daniel Gwozdz

Research associate Sharon Mah investigates telecommunications technology used in First Nations communities.

### BY KATIE CHALMERS-BROOKS For The Bulletin

When your loved one is sick, time matters most and you want them to see a doctor sooner rather than later. For people living in isolated First Nations communities, this could require a pricey plane ride or driving for hours on a remote winter road.

But a growing number of these patients are meeting with a doctor via a computer screen without ever setting foot outside the community. In her recently defended PhD thesis, Faculty of Medicine research associate Sharon Mah explored how telecommunications technology is being used on remote reserves and how it can be better employed.

"We are privileged to have good care and I think as Canadians, First Nations particularly deserve good care. To see a population go through such difficulty to access care is just wrong," she says, noting many of these communities don't have a doctor, and some don't even have a nurse.

As a result, research shows, chronic disease in Aboriginals is often diagnosed late. This is particularly troubling given the high incidence of Type 2 diabetes, as well as the high risk for complications like blindness, circulatory problems and renal failure.

"Late diagnosis is a common thing in First Nations. Their mortality rate is incredibly high because of late diagnosis for chronic disease," says Mah, who came to the U of M two years ago from the University of Calgary

and joined the Manitoba First Nations Centre for Aboriginal Health Research.

Telehealth aims to improve access by providing streaming video for consultations between the patient (accompanied by a nurse) and doctor; remote image scanning of organs such as the heart, eyes or skin; and even remote surgeries that have a specialist surgeon operating a robotic arm from afar.

Mah says her research was the first to zero in on how people are using these virtual tools rather than simply identifying whether or not they work. She completed more than 60 interviews with healthcare providers, administrators, staff and patients in three Alberta communities — Fort Chipewyan, Fort McKay, and Chipewyan Prairie — over a two-year period. She observed and lived in these First Nation communities.

Mah discovered that telehealth techniques are changing the responsibility of nurses. They are playing a greater role than ever before and actually have an increased — rather than decreased — workload.

Remote consultations are also putting more focus on the relationships among healthcare providers, as well as the relationships with their patients. "Trust is very important between all of those people on the healthcare team," Mah says.

As responsibilities change so too should policies concerning privacy and liability. For telehealth meetings, the doctor is off-site, communicating with

the nurse and patient at the same time. This creates a different care dynamic, since the patient becomes privy to the conversation.

Mah also noted that basic telehealth services require extra resources, planning and scheduling, which can be difficult despite good intentions. "People have to be very flexible and forgiving of the technology. We expect things to be run very efficiently and that doesn't always happen."

She believes the tools used should cater to the community's needs. Her research is intended to help policymakers, First Nations leaders and healthcare providers to improve medical access for the residents of these distant communities.

"Often times healthcare providers get frustrated by the technology and don't want to use it, so for them it would be good to know how to make this work better," says Mah.

Her current work on the Medical Relocation Project looks at the challenges patients face when they have to leave their community to seek care. When they are away from home, Mah says, patients struggle both financially and emotionally because they are without family and friends.

These individuals also have stories about the devastating consequences that result from having limited access to doctors. One patient spoke of a family member who wasn't diagnosed until they had only one week left to live.

"And that's shocking," says Mah.