

Bringing Research to LIFE

In Brief

New Appointment

Digvir Jayas wears many hats – vice-president (research), world-renowned grain storage researcher, Royal Society member. And now he will don one more.

Jayas has been appointed President of the Manitoba Institute of Agrologists (MIA). MIA's focus is to protect the public interest by setting standards for registration and practice under The Agrologists Act of Manitoba. Registered Agrologists provide advice and knowledge transfer in critical areas related to food production and safety, and bioresource and environmental quality in Manitoba. There are about 650 registered Agrologists in Manitoba and about 9,000 registered Agrologists in Canada.

Jayas' leadership and research excellence earned him the MIA Distinguished Agrologist Award. His research aims to reduce losses in grain quality and quantity during storage in farm and commercial systems. His research results are published in 270 refereed papers and are the basis upon which storage recommendations are made in North America and around the world. In reducing spoilage of stored grain, Jayas' research has increased the availability of high-quality grains to feed the growing population of the world.

Upcoming

Public Forum

Human Wrongs: Making Things Right

Wednesday, March 31, 2010

2:00 PM - 4:30 PM

Room 210, University Centre,
University of Manitoba

For more information e-mail:
johanne2@cc.umanitoba.ca

Bringing Research to Life Speaker Series

The Pursuit of Better Roads: Safe, Smart and Sustainable

Wednesday, April 14, 2010

7:00 PM

Room 290

Education Building

For more information e-mail:
Lindsay_Fagundes@umanitoba.ca

Once the Physical Wounds Heal

Behavioural study looks at emotional consequences for burn survivors



(From left) Faculty of Medicine researchers Jitender Sareen, Sarvesh Logsetty and Darren Campbell

Photo by Katie Chalmers-Brooks

BY KATIE CHALMERS-BROOKS

The technology used to treat the physical injuries of trauma victims – including burn patients – has made huge leaps forward in recent years. The result? Doctors can save more lives. Now they want to know if they're doing all they can to treat a patient's mental wounds.

In the last half century, medical professionals caring for burn survivors have gained a better understanding of how much and what kind of fluids to administer, and how to keep burns free of infection.

"We can help people survive who have more devastating injuries but the trouble is we don't know whether or not we're coping with their psychological well-being as well as we should be," says Sarvesh Logsetty, head of the Firefighters Burn Unit at Health Sciences Centre. The centre treats more than 300 trauma victims every year, including about 115 burn inpatients – one third of them are children.

Logsetty, along with principal investigator Darren Campbell and co-investigator Jitender Sareen, are exploring the psychological consequences burn patients endure and how they manage their emotions.

Participants are shown a series of images on a computer screen while researchers note their response. Some of the pictures are of benign, everyday items or events while others are more emotionally charged. They might depict an arguing couple or an explicit injury, explains Campbell, a psychiatry professor. The study allows researchers to measure a burn survivor's reaction to ordinary life events without following the person around 24 hours a day.

They're gauging the participants' "reactivity" which tells them whether the individuals are overreacting to things typically considered non-threatening, Campbell says. People with post-traumatic stress disorder (PTSD) often have heightened responses and this "exaggerated emotional reactivity seems to extend into everyday events," adds Campbell.

The interviewers also offer gentle instructions to see whether the participants can control their emotional reactions with some guidance.

A year into the study, preliminary findings show burn survivors have more intense emotional reactions and are less effective at using emotion regulation strategies. Surprisingly, those with more severe burns had a "less intense emotional reaction" than those with more minor injuries, says Campbell,

who believes those hurt more severely likely have improved "perspective-taking."

"Seeing some not-so-nice images on screen doesn't have the same impact if they feel they have had a very profound life-threatening event," he says.

Eventually the researchers would like to take pictures of the participants' brains using MRI while they're shown these emotionally evocative images to get a better idea of the brain's activity. Campbell is already doing so with military soldiers coping with PTSD.

Logsetty, a general surgeon who specializes in burn and trauma care, treats patients who have suffered various forms of trauma – from burns and assaults (involving stabbing and gun-shot wounds), to falls and motor vehicle collisions. In his unit, a psychology and psychiatry team works closely with trauma patients and medications are prescribed if a patient shows clear signs of PTSD but Logsetty would like to know if there are ways to predict who develops these symptoms, and if so, prevent that from happening.

Sareen too would like to know why one person develops mental health problems and another does not. "It's not clear," the psychiatrist says.

umanitoba.ca/research

Published by the Research Communications and Marketing Unit,
Office of the Vice-President (Research)
Comments, submissions and event listings
to: research_communications@umanitoba.ca
Phone: (204) 474-9020 Fax (204) 261-0325