

## HEALTH

# Big interest in epilepsy brain bank

## First of its kind boon to researchers

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THE STARPHOENIX

Canada's first epilepsy brain bank could help researchers develop new drugs for untreatable seizures.

"No matter how many new drugs are invented in the last 30 years, they have not improved the efficacy," University of Saskatchewan pharmacology researcher Dr. Farzad Moien said.

Moien is part of a group of neurologists, surgeons, and researchers who created the country's first carefully frozen collection of brain pieces extracted from patients with temporal lobe epilepsy.

About a third of patients with that type of epilepsy get no long-term relief from the medications on the market, he said.

In 2012, he and neurologist Dr. Jose Tellez-Zenteno proposed the idea of a bank to keep the malfunctioning brain segments for more detailed study, and hopefully develop new medications





Typically, once a pathologist examines the damaged tissue, it goes into an incinerator.

After surmounting the required ethical hurdles, the doctors began asking Saskatoon patients last year whether they'd be willing to donate the removed portion of their brains for research. In combination with the patients' other test results, the samples are a powerful tool.

Angela Dohms of Regina didn't have to think twice about participating.

"I was intrigued. I was like, 'A brain bank?'" said Dohms, whose seizures just kept on coming no matter which medication she tried.

The 32-year-old administrative assistant had part of her right temporal lobe removed last August, and is seizure-free to date.

The troublesome pieces of

brain are now stored in small vials at -80 C in a U of S lab.

"I was quite excited about it, because research is very important. The more research they can do, the more things they can improve down the road," Dohms said.

Last year in Saskatoon, doctors did 14 of the surgeries. Pieces from four of those patients' brains are in the bank so far. They hope to gather as many as possible.

To keep the brain section in a useful state, a team of people must be at the ready when surgeons extract it, says research co-ordinator Dr. Lizbeth Hernandez.

Freezing must begin within five minutes of extraction, she said. She uses a special chemical so the specimen freezes slowly, to prevent any damage.

The researchers plan to

identify and study the proteins in the brains with epilepsy, and compare and contrast them with the proteins present in a healthy brain, Moien said. That should help researchers narrow down what proteins are overly active, or slacking, and are potential targets for drugs.

The brain samples can also offer a glimpse into which existing medications, if any, are protecting the brain from the damage caused by repeated seizures.

Research, of course, costs money. Tellez-Zenteno is looking for donors — individuals, governments, corporations, and universities — to buy equipment and fund the workers needed to do more investigation. Donations should be directed to the Royal University Hospital Foundation and desig-



Brain samples are powerful tools to help researchers develop more effective treatments.

nated for epilepsy research.

The funds available to study epilepsy are relatively small compared to other diseases, the doctors said, noting the bank is an op-

portunity to accelerate that research.

"This is a very good opportunity to put together science and real life — real people," Hernandez said.

The university is also home to a Parkinson's disease brain bank. Those brains are donated after the patient dies.

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## CULTURE

# Sask arts survey highlights low incomes

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David LaRiviere

The majority of artists in Saskatchewan are forced to find employment outside their creative practice in order to make a living, according to a recent survey.

While most receive some form of payment for their artistic work, the artists polled in the report make an average income of just \$15,380 from their creative work annually.

stimulated by whatever medium we work in. And this can lead to situations where bands play for beer, or actors don't work for the proper rates," LaRiviere said. "It results in a vicious cycle, and it's not the way it should be."

Low wages and long hours for artists have a variety of sources, LaRiviere said, adding there aren't enough venues in place that can compensate emerging and professional artists. While he is grateful for the galler-

"YOU HAVE TO

## COMMENTARY

# Siri, say no to the panhandler



LES MacPHERSON

I hardly ever carry cash anymore. If I need to pay for something, I use my debit card. If that catches on fire, I use my credit card. There still are a few transactions, however, for which the cards are not accepted.

Panhandlers, for instance, won't take a debit card. When they ask for spare change, I can honestly say sorry, but I don't have any.

fees of less than one per cent; the service is called M-Pesa, "M" for mobile and "Pesa" the Swahili word for money. In Kenya, there are 17 million subscribers. Even beggars are said to accept handouts on their cellphones. I can find no figures to support this, but street crime reportedly is reduced because hardly anyone in Kenya carries cash anymore. Mobile banking also has made possible myriad small business initiatives while opening an uncorrupted financial system to millions. A quarter of Kenya's GDP runs through M-Pesa.

Mobile phones are ubiquitous in the developing world.

then beat it back to the car to find a ticket under the wiper. Incidentally, when the new, improved parking payment system is fully in effect, the old meters will be removed and sold to Satan for use in downtown hell:

*"But Satan, I was just getting change for the meter..."*  
*"I know. Ha ha ha ..."*

Even the car wash in our neighbourhood takes cards now. That's good, because it was embarrassing to drive out with half my car still covered in soap because I didn't have another looney.

We still need a quarter for a cart at the neighbourhood grocery store. That's why you'll often see me in there