

# Canada, Uganda test drug to treat brain disease

May 1 2013, by Michel Comte

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Canada is funding testing in Uganda of a popular off-patent antidepressant drug to fight a fungal brain disease that claims more than half a million lives in sub-Saharan Africa every year.

Sertraline, better known as Zoloft or Lustral, was first introduced by pharmaceutical giant [Pfizer](#) in 1991. It has since become the second-most prescribed antidepressant in the United States.

But recent lab work at the University of Utah found that the drug also has a potent fungicidal effect, with several women taking it to alleviate symptoms of premenstrual syndrome reporting it also cleared up their [yeast infections](#).

With Canadian backing, researchers at Uganda's Infectious Disease Institute at Makerere University now hope to show that it can be used to stem early deaths from [cryptococcal meningitis](#)—an infection of the tissue covering the brain that claims 600,000 lives in sub-Saharan Africa annually.

"We're hoping to teach an old drug new tricks," lead researcher David Meya told AFP in a telephone interview from Uganda Tuesday.

"Our hope is that if this drug works against cryptococcal meningitis, we can cut [mortality rates](#) by 40 to 50 percent, which would be a huge leap."

More than 30 percent of patients die within 10 weeks of onset of the

disease, which has been linked to AIDS.

Currently, it is being treated with one of two drugs: flucytosine and [amphotericin](#). Both were developed in the 1950s and are "very expensive and not widely available in sub-Saharan Africa," Meya said.

A third drug, [fluconazole](#), has also been tried but is less effective, he added.

"So if we discover another drug that is more effective against cryptococcal meningitis and is cheaper, we can substantially bring down mortality rates in sub-Saharan Africa."

Developing and testing a new drug from scratch typically takes seven to 10 years. Repurposing a drug already on the market in this case is expected to take only four years, Meya said.

"We already know this drug's safety profile. We just need to do a clinical trial to see how effective varying amounts of the drug are at treating a new disease," he noted.

Furthermore, since drug patents for [sertraline](#) are now expired, it would be possible for generic drug makers to produce and sell it more cheaply.

The Canadian government is helping Meya's team with \$100,000 (US\$99,364) in seed funding through a program called Grand Challenges Canada.

It is one of more than 100 grants to innovators in 13 developing nations and in Canada "to pursue bold, creative ideas for tackling health problems," according to a statement.

The funds—\$10.9 million in total—are to be spent on trying out remote

diagnostics and monitoring, health protection, as well as drug and vaccine development and accessibility.

Other projects include a vaccine for smokers against nicotine's addictive effect; a glucose meter cell phone attachment for diabetics and a cheap instant test strip to diagnose deadly diseases like dengue and Ebola.

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