

# CITY & REGION

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THURSDAY, AUGUST 2, 2007

# Vaccine may treat deadly dysentery

MEGHAN WATERS  
CALGARY HERALD

Millions of children in developing countries could eventually be saved by a vaccine being developed at the University of Calgary.

At least 100,000 people die and millions are sickened by amoebic dysentery every year.

Although most amoebas are harmless, one type — Entamoeba histolytica — attacks the stomach.

"Once you get an invasion into your intestines, you get this bloody diarrhea, and it doesn't end there," said Kris Chadee, a researcher at the U of C.

The amoeba infects people who consume water or food contaminated with fecal matter.

The U of C team is working on a vaccine using a protein on the surface of the amoeba that stimulates the body's immune system.

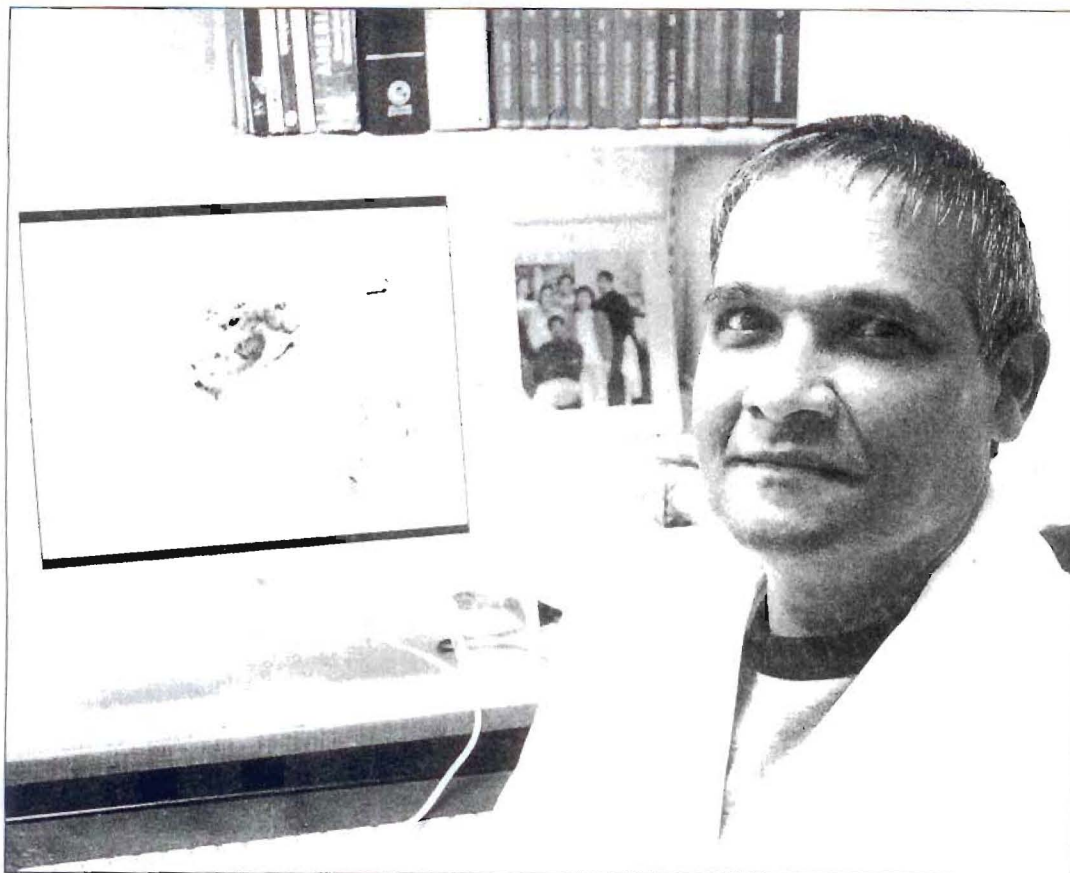
A squirt of the vaccine up the nose of small animals proved 100 per cent effective at blocking the amoeba from setting up shop in the stomach.

The parasite affects about 10 per cent of the world's population.

Drugs that treat the disease are effective, but expensive.

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Courtesy, Laurie Wang

**Dr. Kris Chadee, a researcher at the University of Calgary, hopes children in developing countries will eventually be saved by a new vaccine being developed at the U of C.**

## FROM BI VACCINE: Dirty water big killer

"The population at risk is the same population that cannot afford (the drugs)," said Chadee.

Slums in countries such as Mexico and India are hotbeds for the parasite, although there are occasionally outbreaks in Canada.

North Americans sometimes bring the bug back with them after trips to warm tourist destinations.

"It would be a relatively important vaccine for children in

developing nations," said Calgary microbiologist Dan Gregson, adding he is not sure he would recommend it to a short-term Canadian traveller.

The problem with vaccines, however, is they're usually made available first to those who can afford them.

"They (new vaccines) are usually relatively pricey and they make them available to people who don't need them as urgently," said Gregson.

Chadee says he hopes a char-

ity, such as the Gates Foundation, recognizes the life-saving potential of the vaccine.

Although the Ebola virus and avian flu snag big headlines, it's dirty drinking water that's the big killer. According to Unicef, diarrhea kills two million children every year.

The vaccine has to be tested on primates and proved effective in clinical trials before it can reach a wider audience.