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<http://www.theglobeandmail.com/servlet/story/RTGAM.20050221.whepc0221/BNStory/specialScienceandHealth/>
<http://www.medicine.uottawa.ca/microbio/bmi/eng/core-members/brown.html>
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Hep C mystery cracked, Canadian team believes

By HELEN BRANSWELL

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Toronto – A team of Canadian researchers believes it has unravelled the mystery of how hepatitis C evades the human immune system to cause chronic disease in about three-quarters of the people who become infected.

Their discovery provides a bright ending to the personal tragedy of the hepatitis C patient whose blood they studied, a man who became infected through a medical error in a hospital clinic.

The researchers report that the virus escapes detection because its external coat mimics immunoglobulin, one of the immune system's warriors. Further, the virus may evolve to maintain or improve its camouflage as time goes on, they suggest.

Because the immune system is set up to attack only things it considers foreign, it does not attempt to destroy the virus.

"If you want to hide in a forest, it's often good to look like a tree," explained Dr. Earl Brown, a virologist at the University of Ottawa and senior author of the paper.

The team came to its conclusions by studying blood drawn from the first infected blood donor caught by heightened screening methods put in place after Canada's tainted blood scandal. The man was so newly infected with hepatitis C that his immune system hadn't yet responded to it. As a consequence, the scientists were able to chart that response over time.

"We watched it (the virus) walk into the forest," Dr. Brown said, continuing with his metaphor.

The blood donor had become infected in an Alberta hospital in the spring of 2000 while receiving intravenous antibiotics. Now living in southeastern British Columbia, he's pleased his misfortune may help science figure out how to foil the virus.

"It was such a bizarre sequence of events that I wanted to see some good come out of it," said Randy, 47, who asked that his surname not be made public.

"This might be something that could potentially lead to a cure or a better treatment for a lot of people. And that kind of drives you along