

# immune study opens window on hep c virus

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<http://tinyurl.com/5ct8t>

<http://www.medicine.uottawa.ca/microbio/bmi/eng/core-members/brown.html>

<http://www.cbc.ca/story/science/national/2005/02/22/hepatitis-C050222.html>

Immune study opens window on hepatitis C virus

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CBC News

OTTAWA – Canadian and U.S. researchers think they've found the secret of how the hepatitis C virus camouflages itself from our immune system.

Blood from a man infected with Hep C in hospital has helped scientists learn more about the virus.

Hepatitis C chronically infects nearly 200 million people globally, but scientists know little about how it evades detection by the immune system.

Now, researchers have a way to reproduce the virus in the lab, a finding that may allow them to better understand its life cycle and test potential antiviral compounds.

The model viral particles seem to act like a whole virus by infecting human liver cells and copying themselves, said Dr. Jake Liang of the National Institute of Diabetes and Digestive and Kidney Diseases in Bethesda, Md.

Liang's study appears in this week's issue of Proceedings of the National Academy of Sciences.

The strain of the virus Liang studied is the major type behind human infections worldwide, which is most resistant to current therapies.

The viral strain doesn't trigger an immune response because its external coat resembles immunoglobulin, part of the immune system's arsenal.

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Hep C may evolve to keep up its camouflage or improve it over time, which could complicate efforts to develop a vaccine, said the authors of a second study.

In this week's issue of the journal Virology, Prof. Earl Brown of the University of Ottawa and his colleagues said the viral coating prevents the immune system from recognizing the invader and killing it.

The Ottawa team studied samples from an infected blood donor who was identified during heightened screening following Canada's tainted blood scandal.

About 240,000 Canadians suffer from hepatitis C, a disease that causes inflammation of the liver, and in some cases, severe damage or cancer in the organ.

Some people may appear tired and jaundiced during the initial infection phase, but many show no symptoms.

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