

MEDIA RELEASE

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ATTENTION: Health and science editors

Mount Sinai Hospital researcher gives new hope for patients with liver disease

(Toronto, ON, May 15, 2009) - In a study published by the New England Journal of Medicine online on May 20, 2009, (and in the June 11, 2009 print issue) Mount Sinai Hospital's Dr. Katherine Siminovitch has discovered a new genetic pathway (a gene "road map") that could provide personalized treatment options for patients with a devastating liver disease. The study offers great hope in treating other autoimmune diseases such as rheumatoid arthritis.

"This finding provides the very first clues into the causes of primary biliary cirrhosis and gives us new ideas for treating this and many other autoimmune diseases that affect so many Canadians," said Dr. Siminovitch, Senior Investigator and Sherman Family Research Chair in Genomic Medicine at the Samuel Lunenfeld Research Institute of Mount Sinai Hospital, Director of the Fred A. Litwin & Family Centre in Genetic Medicine, and Director of Genomic Medicine at the University Health Network. "We are accelerating our ability to diagnose disease, apply leading-edge technology to discovery of the disease-causing genes and translate our findings into improved, personalized treatment. These advances give us hope for improving outcomes for affected patients in the very near future."

Dr. Siminovitch and colleagues identified three genes in one pathway that are involved in susceptibility to primary biliary cirrhosis (PBC), an autoimmune disease that destroys the bile ducts in the liver. Until now, the cause of PBC has remained unknown and there is only one available treatment for this potentially fatal disease. Patients who do not respond to medical treatment may require liver transplantation. PBC usually strikes women between the ages of 40-60 years, and affects about one in 1,000 women over the age of 40 years.

The researchers studied 600 patients with PBC in Canada and 400 patients in the United States through a partnership with the Mayo Clinic, along with 1,000 controls (patients without the disease). Patients with PBC often have other autoimmune diseases as well, suggesting that these diseases may be caused by some of the same genetic factors as PBC.

"We can now pinpoint any gene for any disease," said Dr. Jim Woodgett, Director of Research, Samuel Lunenfeld Research Institute of Mount Sinai Hospital. "Dr. Siminovitch's work is an excellent example of how genetic findings are making a difference in patients' lives."

The study was funded by Canadian Institutes of Health Research and the Ontario Research Fund. Additional support was provided by the Canadian PBC Society.

About the Samuel Lunenfeld Research Institute of Mount Sinai Hospital

The Samuel Lunenfeld Research Institute of Mount Sinai Hospital, a University of Toronto affiliated research centre established in 1985, is one of the world's premier centres in biomedical research. Thirty-four principal investigators lead research in diabetes, cancer biology, epidemiology, stem cell research, women's and infants' health, neurobiology and systems biology. For more information on the Samuel Lunenfeld Research Institute, please visit www.lunenfeld.ca

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NOTE to media: The paper, '*Primary Biliary Cirrhosis Associated with HLA, IL12A, and IL12RB2 Variants*' is available upon request.

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