

DIABETES CANADA



OUR RESEARCHERS | DR. KYOUNG HAN KIM

Thank you for your generosity. Diabetes Canada is grateful to our donors for supporting critical research that will end diabetes.

Through your support, Dr. Kyoung Han Kim, a scientist and director of the Functional Genetics and Metabolism Laboratory at the University of Ottawa Heart Institute, is bringing us one step closer to better health outcomes for people with type 2 diabetes and fatty liver disease.

In healthy individuals, blood sugars are controlled by a hormone called insulin, which lowers blood sugar levels. For people with type 2 diabetes, they can no longer produce or use enough insulin to control their blood sugars, which can lead to health complications such as nerve damage, blindness, heart disease, kidney failure, anxiety, amputations, and even death. Type 2 diabetes is caused by several different risk factors, including obesity, and accounts for 90% of diabetes cases in Canada.

Fatty liver disease is the most common complication of type 2 diabetes, affecting 1 in 5 Canadians. If not managed or treated, people with fatty liver disease may develop irreversible liver failure.

A new group of drugs called SGLT2 inhibitors has been approved by Health Canada and is being widely used to lower the blood glucose levels of people with type 2 diabetes. Notably, several clinical trials have shown that these drugs effectively improve fatty liver disease in type 2 diabetes patients as well.

Dr. Kyoung Han Kim's goal is to understand how SGLT2 inhibitors work to improve fatty liver disease. He and his team will:

1. Determine how SGLT2 inhibitors work against fatty liver disease.
2. Investigate how SGLT2 inhibitors improve metabolism in fatty livers.
3. Examine the molecular mechanism of SGLT2 inhibitors' beneficial effects.

This work will improve the care of patients living with type 2 diabetes and fatty liver disease.

Thank you for giving hope for a healthier future to people with type 2 diabetes.