

Dr. Mathieu Laplante



CURE | BIOMEDICAL RESEARCH

Project: Uncovering a New Regulator of Glucose Homeostasis

Thank you. Through donor support, Dr. Mathieu Laplante, professor with the Faculty of Medicine at Laval University, is bringing us one step closer to better treatments for people with type 2 diabetes.

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.

Dr. Laplante and his team have discovered a protein called FBXO that influences how the liver manages blood sugar levels. When normal FBXO levels are restored, blood sugar levels are reduced, even in the presence of obesity and insulin resistance.

Building on these findings, Dr. Laplante's lab will:

- Determine how FBXO regulates sugar metabolism in the liver
- Test whether increasing FBXO levels can improve diabetes outcomes
- Identify the molecules that work with FBXO to control sugar levels

This work will contribute to the development of more effective and personalised therapies for diabetes.

Thank you for your generosity. Diabetes Canada is grateful to our donors for supporting critical research that will improve the lives of people with diabetes.