

Dr. Rémi Rabasa-Lhoret



COMPLICATIONS | CLINICAL RESEARCH

Project: Revising treatment and prevention recommendations of hypoglycemic episodes for people living with type 1 diabetes: The REMODAL trial

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

Through your support, Dr. Rémi Rabasa-Lhoret, endocrinologist and Director of the Diabetes Clinic and the Metabolic Disease Research Unit at the Montreal Clinical Research Institute (IRCM) and the University of Montreal Hospital Center (CHUM), and Professor at the University of Montreal, is bringing us one step closer to improving the lives of people with type 1 diabetes.

In healthy individuals, blood sugars are controlled by a hormone called insulin, which lowers blood sugar levels. Insulin is produced by cells in the pancreas called beta cells. For people with type 1 diabetes, their beta cells can no longer produce enough insulin to control their blood sugars, which can lead to health complications such as nerve damage, sight loss, heart disease, kidney failure, anxiety, amputations, and even death.

People with type 1 diabetes use insulin therapy and strive to control blood sugar levels as close to normal as possible; however, the most frequent complication of insulin therapy is hypoglycemia, or low blood sugar. Low blood sugar disrupts daily life, and can result in malaise, fear, loss of consciousness, and convulsions. Despite advances in insulin therapy, most people living with type 1 diabetes experience low blood sugar at least twice a week.

Existing guidelines for treating hypoglycemia recommend waiting for a low blood sugar episode to occur before administering 15g of sugar every 15 minutes until the hypoglycemia is corrected. The approach to wait for hypoglycemia to occur before beginning treatment may no longer be the best approach.

Dr. Rabasa-Lhoret's project proposes a paradigm shift in the guidelines for treating hypoglycemia. Co-designed by people living with type 1 diabetes, the study will take advantage of advances in continuous glucose monitor technologies to shift from a reactive to a proactive low blood sugar treatment. His team aims to develop a treatment that prevents low blood sugar episodes, and that will provide individualized guidance on when and how much sugar to take.

By providing improved guidelines, Dr. Rabasa-Lhoret and his team will reduce the frequency and burden of hypoglycemia, while enhancing treatment safety and the overall quality of life for people with type 1 diabetes.