



COMPLICATIONS | CLINICAL RESEARCH

Project: Adding two-sugar lowering drugs to an automated insulin delivery system, to further improve blood sugar levels

Through donor support, Dr. Michael Tsoukas, Associate Professor of Medicine in the Division of Endocrinology at the McGill University Health Centre, is testing a new combination therapy to help 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 have been destroyed by their own immune system. As a result, they can no longer produce 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.

Despite advancements in automated insulin delivery or AID systems, not everyone with type 1 diabetes can reach desired blood sugar levels.

Dr. Tsoukas and his team want to find out if using a combination of two different drugs, semaglutide and empagliflozin, can improve blood sugar control in people with type 1 diabetes using AID system.

This will be the first type 1 diabetes study combining both of these drugs, and which the team hopes will help people with diabetes better control their blood sugars.