

DIABETES CANADA



OUR RESEARCHERS | DR. COLIN ANDERSON

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

Through your support, Dr. Colin Anderson, immunologist and professor at the University of Alberta is bringing us one step closer to ending 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. They can no longer produce 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. Colin Anderson is working on a method to prevent a person's immune system from destroying beta cells. His research aims to wipe out problematic immune system cells and restart the immune system in a way that blocks their ability to attack insulin-producing cells.

Diabetes Canada is excited to fund the next phase of Dr. Anderson's research. He and his team have already achieved a partial immune system reset which can delay type 1 diabetes. They aim to do a more complete reset such that diabetes is permanently stopped.

Previous studies achieved only a partial reset because immune system cells that hide in tissues like the pancreas are not destroyed by current methods. Dr. Anderson will test a new method that could allow the drug that destroys these immune cells to penetrate tissues like the pancreas.

By combining this immune system reset approach with transplants to restore the insulin producing cells, type 1 diabetes may be cured.

Thank you for giving hope for a healthier future to without type 1 diabetes.