

About JDRF's Artificial Pancreas Project

JDRF's Artificial Pancreas Project is a potential breakthrough that would dramatically improve the lives of millions of people with type 1 diabetes through an artificial pancreas, an automated system to disperse insulin based on real-time changes in blood sugar levels.

When complete, an artificial pancreas will measure blood sugar through a continuous glucose monitor (CGM), which constantly reads glucose levels through a hair-thin tube inserted just below the skin, typically on the stomach. The CGM will beam those readings to an insulin pump. In an advanced system, the pump houses a sophisticated computer program that automatically calculates the necessary amount of insulin (and in some designs glucagon,) based on the CGM's glucose readings and delivers the right amounts of these drugs.

The artificial pancreas will result in a better quality of life for those with diabetes and lower risks of complications. JDRF believes the Artificial Pancreas Project will be a bridge to finding an eventual cure for type 1 diabetes.

In 2006, JDRF established the Artificial Pancreas Consortium to fund doctors and researchers across the world to advance this revolutionary way of treating and managing type 1 diabetes. Composed of a group of university-based mathematicians, engineers and diabetes experts, the consortium has already developed and established the scientific feasibility of the computer programs needed for an artificial pancreas.

Today, JDRF is historically positioned to translate research into the first steps toward real treatment options. The organization has partnered with Animas, a Johnson & Johnson company that manufactures insulin delivery and glucose management systems, to develop a first-generation artificial pancreas. JDRF has also entered into a non-exclusive partnership with BD (Becton, Dickinson and Company) to develop novel insulin delivery products, a key component in developing safe and effective artificial pancreas systems.

A portion of the proceeds from the JDRF North Florida Chapter's Miracle in the Moonlight Gala will benefit JDRF's Artificial Pancreas Project.