

## Support of diabetes research

*In the past four decades, JDRF has funded more diabetes research than any other charitable organization: \$1.4 billion and counting.*

**1970s** Founded in 1970, the Juvenile Diabetes Research Foundation (JDRF) was formed by parents whose children had type 1 diabetes. In this decade, the first test to measure long-term blood sugar levels was developed with JDRF scientific backing. This test allowed doctors and scientists to determine how well someone controlled diabetes over a period of months.

**1980s** In the 1980s, JDRF-funded science facilitated the development of genetically engineered insulin, the first human protein to be cloned and made by genetic engineering. An experimental insulin pump was later developed and aided in delivering a pre-programmed flow of insulin with larger amounts before meals.

**1990s** In the 1990s, JDRF launched the JDRF Center for Islet Transplantation at Harvard Medical School – the first of many centers initiated by JDRF to focus on reversing type 1 diabetes and hypoglycemic unawareness. Later, JDRF established the Human Islet Distribution Programs to meet increased demand for insulin-producing cells in clinical transplants and basic diabetes research. In 1999, JDRF and the National Institutes of Health helped create the Immune Tolerance Network – a \$144 million research project to improve the tolerance of transplanted tissue and prevent autoimmune conditions that destroy insulin-producing cells.

**2000 to the present** JDRF partnered with the Department of Defense to develop technology to monitor blood sugar in 2005. The Technologies for Metabolic Monitoring research program, a joint initiative among JDRF and three U.S. agencies, aimed to develop new approaches to non-invasive glucose monitoring in order to improve tight controls of diabetes.

Currently, the University of Florida is funding more than \$16 million in type 1 diabetes research in complications and immune therapies.

JDRF's current focus is collaborating with industry, academia, insurers and regulatory agencies in driving the development of an artificial pancreas, a system equipped with a sophisticated computer program that mimics the function of a human pancreas. Prototypes in hospital settings have been tested successfully.

**Over the last 10 years, JDRF has contributed more than \$40 million to research at the University of Florida for type 1 diabetes, and more than \$900,000 at Nemours Children's Clinic.**