JDRF IMPROVING LIVES. CURING TYPE 1 DIABETES.

T1D Research Highlights

At JDRF, our ultimate goal is finding a cure for type 1 diabetes (T1D). We are also committed to funding the development of new therapies to keep people with T1D healthier, longer, until that cure is found. Read on to learn how JDRF research just this past year is making life with T1D better.

BETTER OUTCOMES IN T1D PREGNANCIES

The CONCEPTT trial showed that continuous glucose monitoring during pregnancy led to significantly better health outcomes for mothers with T1D and their babies. These findings could lead to an improved standard of care for expecting mothers with T1D around the world.

SLOWER PROGRESSION OF T1D

Researchers discovered that the cancer drug imatinib slowed the progression of T1D and the loss of insulin production in adults newly diagnosed with T1D. Scientists also found that oral insulin delayed progression of T1D by more than 30 months in certain people. The ability to significantly postpone T1D progression is a big accomplishment in itself and could lead to further therapeutic advances as well.

HEALTHIER HEARTS AND KIDNEYS

Heart disease is a major public health concern, including within the T1D community. So the finding that metformin can improve cardiovascular and metabolic outcomes in adults with longstanding T1D is good news indeed.

LOWER BLOOD SUGAR, BETTER HEALTH

Lexicon Pharmaceuticals reported that the drug sotagliflozin reduced HbA1c in adults with T1D and also improved other key health measures, such as time in range, body weight and blood pressure, without increasing hypoglycemia. Outcomes like these are important in T1D, and we are excited to see trials like Lexicon's acknowledging this.

2017 **RESEARCH** SUCCESS

Results like these have delivered progress we can be proud of in 2017.

Read more at **jdrf.org**

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T1D Research on the Horizon

It may be risky to speculate on the next research breakthrough. But at JDRF we don't gamble on the future: we make it happen. Here are some of the cutting-edge projects we launched in 2017 that have big potential in 2018 and beyond.

BRINGING POWERFUL DATA ANALYSIS TO T1D

We are excited to be collaborating with IBM to apply machine learning methods to analyze years of global T1D research data. This is the first precision medicine effort to identify factors contributing to T1D risk and onset. We believe a better understanding of risk factors and causes of T1D will enable us to eventually find a way to prevent the disease entirely. Knowledge gained from this collaboration could also help lead to a cure for those already living with T1D.

PAVING THE WAY FOR DIY AP SYSTEMS

Over the past few years, a growing number of people have used do-it-yourself (DIY) approaches to "hack" their diabetes devices to allow them to work together as an automated insulin delivery system. Many of those people have experienced better health outcomes as a result. But these DIY systems require some relatively sophisticated steps and are not FDA approved. JDRF has launched an initiative to make DIY technology approaches more accessible to a wider group of people with diabetes.

PURSUING A POTENTIAL CURE FOR T1D

In 2017, JDRF-funded researchers launched a new clinical trial of a potential beta cell regeneration therapy called GABA. GABA encourages alpha cells in the pancreas (which normally produce glucagon) to convert into beta cells and has been shown to produce new beta cells in mice. If the trial results show that the therapy is safe and works well in people, it could lead to a biological cure for T1D.

2018 **RESEARCH** PROMISE

Launching these and other projects was a big part of our success in 2017.

Read more at **jdrf.org**