

Highlights from the National Institutes of Health Report

The Special Diabetes Program (SDP) is a federal program that works for patients, researchers, the private sector, and taxpayers. In its most recent evaluation of the SDP, the National Institutes of Health (NIH) discussed the success of the program and the importance of continued funding to achieve future breakthroughs. Below are excerpts from the NIH's *Evaluation Report: Special Statutory Funding Program For Type 1 Diabetes, National Institutes of Health, December, 2011*.

"People with diabetes are leading longer, healthier lives with a reduced likelihood and severity of complications due to strides in medical treatment that derive from research advances ... which were made possible in part through support from the SDP." (P. 103)

"Due to support from the program, new technologies and research results have revolutionized the way that patients manage their disease, improved the outlook for people with T1D, and accelerated the pace of research to close the loop." (P. 74)

"The SDP has played an important role in the generation of new tools to improve patients' ability to control their blood glucose levels...The program filled an industry gap by first testing continuous glucose monitors (CGMs) in children, a population that could benefit greatly from this technology, and supports research to 'close the loop' by linking glucose monitoring to insulin delivery." (Pp. 73-74)

"The SDP enables the initiation of ... high-impact research efforts at a scientifically optimal scale. The majority of the funds since 2001 have supported ... collaborative

research efforts, with a goal of promoting progress in T1D research that could not be achieved by a single laboratory. The collaborative initiatives, which have become a hallmark of the SDP, include genetics consortia, long-term epidemiological efforts, a beta cell consortium, animal models consortia, a clinical islet transplantation consortium, and clinical trial networks." (P. 180)

"The potential payoff from the investment in these large-scale long-term studies is only beginning to be realized. These efforts have set the stage for future research progress that is expected to be fully realized in the years to come. This important line of research could not be undertaken at all, or at least not at an unprecedented scale, without the financial aid and organizational resources of the SDP." (P. 9)

"[The Environmental Determinants of Diabetes in the Young—TEDDY] is creating an unparalleled and invaluable collection of data and biosamples that has the potential to transform research on the causes and progression of type 1 diabetes and have an enormous impact on public health efforts to prevent the disease." (P. 13)

SDP researchers "have identified over 40 genes or gene regions associated with T1D, bringing the total number of known regions to near 50—up from only three genes that were known a few years ago. Understanding the genetic underpinnings of T1D can aid the ability to predict risk, as well as inform the development of new prevention and treatment strategies." (P. 12 & P. 181)

"T1D research also benefits people with other autoimmune diseases. Although many autoimmune diseases are rare, collectively they affect approximately 5-8% of the U.S. population. Some of the type 1 genes identified through research supported by the Special Diabetes Program affect the immune system and are involved in other autoimmune diseases. Therefore, understanding the underpinnings of type 1 diabetes could provide insights into the genetics and pathogenesis of other autoimmune diseases. As therapies effective in type 1 diabetes may involve modulation of the immune system, these treatments could also be effective for other autoimmune diseases...Research could also uncover environmental triggers of celiac disease." (P. xi)