



dedicated to finding a cure

Potential Benefits of JDRF's Research and Advocacy For People with Type 2 Diabetes

JDRF has always had a singular focus: to find a cure for type 1 diabetes and its complications through the support of research. However, many JDRF-funded research projects may also benefit people with type 2 diabetes, as there are some similarities between the two diseases, for example, in terms of complications, increasing insulin production and managing glucose control. While our target audience for JDRF messaging is the type 1 community, the following are some general statements outlining the potential impact of JDRF's research and advocacy for people with type 2 diabetes.

Complications Research

- Because complications for type 1 and type 2 develop along similar pathways in the body, nearly all of the research JDRF funds in its Complications cure therapeutic area has the potential to benefit people with type 2 diabetes.
- The human clinical trials that JDRF supports may lead to the development of procedures or drugs that benefit people with both types of diabetes.
- Many investigators use both type 1 and type 2 models and subjects in their research.
- Studies that aim to better understand the risk factors that lead to the development or progression of complications may apply to type 2 diabetics as well as those with type 1.
- Specific examples of research applicable to both type 1 and type 2 diabetes:
 - Therapeutic interventions in different diabetes complications – diabetic retinopathy (Lucentis), diabetic peripheral neuropathy (VEGF-activation) and diabetic nephropathy (AGE cross-link breakers) – are being investigated in both type 1 and type 2 populations. *NOTE:* The AGE cross-link breaker study currently supported by JDRF is conducted in type 1 diabetic subjects. The drug and target are applicable to both type 1 and type 2. Research aimed at the discovery of disease mechanisms – i.e. vessel leak in the eye, painful neuropathy or kidney function decline – is applicable to both type 1 and type 2 populations.

Replacement and Regeneration Research

- Compounds with the potential to regenerate beta cells, such as exenatide, are being studied in subjects with type 1 and type 2 diabetes.
- Industry sees regeneration and replacement research as having the potential to lead to new treatments for type 1 diabetes, but it perceives a greater market opportunity in developing new therapeutics for type 2 diabetes because of the much larger population with that form of the disease.
- Efforts to develop replacement approaches using donor beta cells or islets and therapeutic stem cell therapy may lead to safe and effective treatment for type 1 diabetes. These approaches have a strong potential to provide utility for individuals with type 2 diabetes.

Metabolic Control Research

- Restoration of normal blood sugar levels is critical for people with type 1 and type 2 diabetes to reduce the risk of complications. JDRF's role in speeding the development and usage of continuous glucose monitors – and ultimately an artificial pancreas – will benefit people with both diseases by improving glucose control and significantly reducing the risk for both short-term and long-term diabetic complications.
- JDRF is funding research aimed at hypoglycemia (low blood sugar levels), a potentially life-threatening condition that affects people with both type 1 and type 2 diabetes, to better understand the condition and develop new ways to treat and prevent it.

JDRF Advocacy Efforts

- Since 1997, JDRF's grassroots advocacy efforts have been successful in securing and renewing more than \$3 billion in NIH research through the Special Diabetes Program, which consists of two components – funding for type 1 diabetes research and funding for diabetes research focused on treatment for Native Americans, largely those with type 2 diabetes.