



JDRF nPOD Part II: Support research through organ donation

Now that you've learned about [Anne's story of donation](#), I want to give an example of the diabetes research that benefits from organ donation.

The Network for Pancreatic Organ Donors with Diabetes (nPOD) is a collaborative type 1 diabetes research project funded by JDRF. nPOD supports scientific investigators by providing, without cost, rare and difficult to obtain tissues beneficial to their research. nPOD currently supports over [120 type 1 diabetes-related scientific studies](#) at institutions around the world, to provide a useful resource to the community of researchers dedicated to finding a cure for type 1 diabetes.

These scientists take the gift of donation very seriously. They created a [Tissue Prioritization Committee](#) that makes sure each donation is used wisely. Scientists work together whenever possible, and share their research results so that they can find a cure faster.

Why do we need to study human diabetes? Much of the diabetes research in the last 50 years has used animal models to study the disease. The mouse has been cured of type 1 diabetes over and over again. Yet this cure has not translated to a cure for the human disease. If scientists can find what is happening in the early stages of the disease, perhaps they can find a cure for diabetes.

Here are Five Important Findings from the nPOD study so far:

1. nPOD studies show that beta cell loss is not absolute and insulin-positive beta cells can be present for many years after diagnosis. Thus the disease process may be chronic instead of acute. These findings challenge the traditional view that beta cell loss is virtually complete at the time of clinical onset.

If beta cells persist, maybe we can find a way to stop inflammation at diagnosis and preserve some beta cell function, thus reducing or stopping complications.
2. Mouse models suggest that the biomarker called CD4 is important in mouse diabetes. nPOD cases reveal that another white blood cell, called CD8, is active in the human immune response to diabetes. So nPOD has helped identify a new potential cell to target with therapies.
3. Analysis of the nPOD samples suggests an association of enteroviruses with T1D. Enteroviruses are common viruses; there are more than 100 types. Most people infected with EV have no symptoms or only mild symptoms, but some infections can be serious. Importantly, signs of enteroviral infection are seen also in those nPOD donors with a longer duration of disease. This finding suggests a persistence of a viral infection or by the occurrence of multiple infections over time. Ultimately, this research may provide support for vaccine development and clinical trials.
4. Beta cell replication and growth appears more sustained in early life. While replication is possible in adult patients, it is rare. However, nPOD has looked at donors with type 2 diabetes treated with drugs called incretin therapies. These donors show signs of regeneration that should be studied further.
5. nPOD studied the pancreas weights of healthy individuals compared to people in various stages of type 1 diabetes. They found that a T1D pancreas has reduced weight compared to those of nondiabetic donors. The research suggests that the size and structure of a pancreas may be different in those that are on their way to developing type 1 well before they get the disease.

All of this research depends on organ donors, people like you that are willing to say "yes" to giving the gift of life for future generations. [Sign up to be an organ donor today.](#)

Sponsored by www.jdrfnpod.org nPOD is a collaborative type 1 diabetes research project funded by JDRF. We support scientific investigators by providing, without cost, rare and difficult to obtain tissues beneficial to their research. nPOD currently supports over [120 type 1 diabetes-related scientific studies](#) at institutions around the world. Our hope is that nPOD will prove a useful resource to the community of researchers dedicated to finding a cure for type 1 diabetes.