Jake's Story

Do you remember Jake? In our July 2007 *Pathways*, we ran a story about his fundraising activities. Jake is now 12 years old and has had diabetes since he was five. Two years ago, he initiated a personal fundraising campaign among family and friends and brought his donations to Spring Point Project. Evidently, he has not forgotten us. He recently interviewed Tom Cartier for an article about our progress and future plans. It just so happens, Jake's work was followed by a number of newspapers. *Way to go Jake!*



Young reporter Jake interviews Tom Cartier.

News from Schulze Diabetes Institute (SDI)

Led by Dr. Bernhard Hering and the researchers at SDI:
A paper was published focusing on six people who have received an islet transplant. The findings indicate that prolonged insulin independence after the transplant of human islets is possible with the use of currently available immunosuppressive drugs. Of the six people studied, five were insulin-independent at one year, and four continue to be insulin-independent at an average of 3.4 years (+/- 0.4) post-transplant. These are encouraging results.

• Another paper reported on the anatomy of the pig pancreas with the goal of helping to guide and improve organ preservation and islet isolation techniques. The findings from this work can be rapidly applied to our pig islet-

to-nonhuman primate preclinical trials.

• After the positive response from the Food and Drug Administration to our proposal for a final preclinical study on porcine islet transplantation in diabetic monkeys, we prepared the design of the trial. Preparations include increasing regulatory standards under which the studies will be performed and ensuring sufficient resources are in place to successfully complete the studies.

Schulze Diabetes Institute

UNIVERSITY OF MINNESOTA





University receives **\$40 million** to help accelerate a cure.

In our own backyard

According to Edina, Minnesota resident and Best Buy founder and chairman Richard Schulze, his daughter Debra has managed her type 1 diabetes with "Herculean" strength for the past 28 years. But the family wasn't satisfied with watching Debra just manage the disease, they envisioned a day when her diabetes could be cured.



Richard Schulze presents gift at ceremony, with Dr. Bernhard Hering and Dr. Mary Firpo in background.

The Schulzes searched nationally and internationally for people who were as passionate as they were about curing diabetes. They wanted to invest their money where it could do the most good and deliver a cure in the foreseeable future. They found what they were looking for in the people at the University of Minnesota. "It was gratifying to know that, at the end of the day, we had this group of people who were so poised and so passionate about finding a cure in our own backyard," said Richard Schulze.

A FAMILY'S TRANSFORMATIONAL GIFT

In December 2008, the Richard M. Schulze Family Foundation pledged \$40 million for diabetes research at the University of Minnesota. This incredible gift will capitalize on the University's strength in diabetes research and aims to shorten the timeline for creating a





The Schulze family (from left to right): Nancy JS Tellor, Maureen Schulze, Richard Schulze, Debra Schulze

viable cure for people with type 1 diabetes.

At the time it was made, the gift was the second largest in the University's history and the second largest by an individual or family foundation to diabetes research in the United States.

In recognition of the foundation's gift, the University has renamed its Diabetes Institute for Immunology and Transplantation to the Schulze Diabetes Institute.

"This transformative gift enables some of the world's best minds to aggressively pursue a cure for a disease that has an impact on millions of people worldwide," said University President Robert H. Bruininks, Ph.D. "I want to personally thank the Schulze family for their leadership, passion and generosity."

WHAT THIS GIFT MEANS

Through pioneering work in the Schulze Diabetes Institute, the Stem Cell Institute, the Center for Translational Medicine, and other critical resources, three promising conceptual cures have been identified: human islet transplantation, stem cell-derived islet cells, and pig islet transplantation in partnership with Spring Point Project. The Schulze family gift will support research focused on efforts to implement these cures.

Insulin Independent

Mary Buche shares story at annual meeting

Spring Point Project's annual board of directors meeting started with an exciting visit. Mary Buche, who has suffered with diabetes for a long time, shared the story about her islet transplant in a clinical trial supervised by Dr. Bernhard Hering at the Schulze Diabetes Institute. Mary told everyone that for the first time in a long time she is now insulin independent. She and her husband shared the difference the transplant has made in both of their lives and inspired us by referring to her life saying "When I had diabetes ..."



Left to right: Pat Ryan, Tom Cartier (Spring Point Project); Joe Buche, Mary Buche; Dr. Bernhard Hering (Schulze Diabetes Institute).

"This is what we want to achieve in partnership with the Schulze Diabetes Institute," said Pat Ryan, Spring Point board of directors. "Our vision is to help a broad range of people become insulin independent using islets from pig donors to cure diabetes."

Because Spring Point Project is now so well underway meeting its goals, the Board devoted the rest of the meeting to discussing:

- Where we will be five years from now with the supply of porcine islet donors for patients with diabetes.
- How we are going to prepare largescale pig production units from which to supply the ever-increasing demand.

BIG PLANS FOR 2009

Some ambitious goals were set—in four separate categories—at this year's annual meeting of Spring Point Project's Board of Directors.

- **1. Fundraising** Raise sufficient money to fund our program and reduce outstanding obligations.
- **2. Pig Supply** Produce a sufficient number of pigs to support the program at the Schulze Diabetes Institute and, if excess capacity exists, support other researchers.
- **3. Long-Term Planning** Plan and prepare for larger scale phase III clinical trials. Be ready to provide widely available and affordable islets to cure diabetes upon FDA approval following the clinical phase.
- **4. IND Filing** Prepare for Investigational New Drugs (IND) filing by the time the Schulze Diabetes Institute has completed the preclinical work to allow clinical trials to begin. This includes the implementation of all requirements by regulatory authorities in the DRWF Islet Resource Facility in compliance with Good Manufacturing Practice.

Pig Postings

from the Diabetes Research and Wellness Foundation Islet Resource Facility, home of Spring Point Project

Now that the facility is fully populated, we've enriched the environment for the pigs to include animal-to-animal and caretaker-to-animal interactions, much to the delight of the pigs. Enrichments include:

- Toys like Bite-Rites, plastic apples and balls, and metal triangle rattles now hang from the penning allowing for play while keeping the toys clean and extending their life.
- Rotating the animals to minimize boredom.
- Group housing so animals get a lot of social interaction.
- Caretaker attention in the form of scratching, bathing and providing drinking water from hoses when pens are cleaned.

On the Road with the Lions

Since our last newsletter, Spring Point and the University of Minnesota have combined to deliver our message of the "Path to a Cure" to over 1,500 members of the Lions Clubs in Minnesota and Wisconsin. In order to accommodate the demand for our exciting story, Henk Schuurman, Tom Spizzo, Mike Martin, and Mack Traynor from Spring Point, along with Brian Flanigan and Jean Gorrel from the University of Minnesota have been "on the road." These intrepid travelers have traversed Minnesota from Granite Falls to International Falls and from Brainerd to Austin—with stops in Mankato, Willmar, Duluth and Minneapolis and, an additional stop in Stevens Point, Wisconsin.

All their "road work" has served to expand awareness of the work being done at our facilities and produced Lions' Club donations of over \$76,000 to date.

"We are most grateful that Spring Point Project has been accepted as a project at last year's Multiple 5M Districts Convention and that the Minnesota Diabetes Lions Foundation has been established," said Henk Schuurman. "We truly appreciate the support of our Lion friends and count them as partners with us on our path to a cure."

PIGS ON THE MOVE

Spring Point and the Lions are working together to prepare a Lions Club International Foundation grant to fund a dedicated Spring Point Project animal transport vehicle.

> In the past, we've contracted out our animal transportation to a specialized highhealth animal transport service. However, now that we are fully populated and working with the University of Minnesota to supply all of their ongoing studies (including the final preclinical study), the time has come to bring this capacity in-house.

We are working with the Lions to fund a vehicle to safely and humanely transport our animals. The vehicle must be inspected and approved by an Institutional Animal Care and



Mack Traynor receiving a generous check from Lions District Governor Judy Loken at the recent MD5M Mid-Winter Convention.

Use Committee. It must be able to be completely cleaned and disinfected. It also must be temperature and humidity controlled with an air filtration system and solely dedicated to animal transport.

We are hoping to fund this addition in a timely manner and, at the same time, provide the Lions with recognition for their ongoing support.

Meet Brianne Ordway



Brianne Ordway Spring Point Project animal care technician

Brianne Ordway is an animal care technician at the Diabetes Research and Wellness Islet Resource Facility. Recently, she developed an Environmental Enrichment Program to improve the general wellbeing of our animals. (See Pig Postings for more details.)

When she's not caring for the pigs, Brianne loves outdoor activities like camping, boating and

hunting. She also likes renovating her home and spending time with her pets.

Brianne's Favorite things: Movie: "The Goonies" Color: Green or blue Food: Chocolate Sports team: The Packers, of course.

We're glad we have such a fun-loving caretaker on our team.