

Research Canada **UPDATE**

Spring 2014

NEWS FOR PARLIAMENTARIANS ON CANADIAN HEALTH RESEARCH

MY LIFE CHANGED FOREVER ON CHRISTMAS DAY 1997, THE DAY I WAS DIAGNOSED WITH TYPE ONE, INSULIN DEPENDENT DIABETES



Image from The Sugar Free Shawn Show Episode 1 uploaded to Youtube

My life changed forever on Christmas Day 1997. It was the day I was diagnosed with type one, insulin dependent diabetes.

I will never forget the doctor telling me about needing to go on insulin injections immediately, and the need to test my blood glucose many times a day – not to mention the long list of potential complications. Not a very merry Christmas!

On the advice of my doctor, I attended a three-day diabetes education clinic at the Ottawa Civic Hospital. As we introduced ourselves to the group, a woman stood up and asked, “Why are we here? We will all go blind, lose our limbs and die.” I didn’t look up at her, but simply kept writing the phrase ‘not me, not me, not me’ on my pad of paper. She changed my lens of diabetes forever.

The information in this session was invaluable. I couldn’t believe how much was invested in diabetes research and innovation. From the discovery of insulin to my new continuous glucose monitoring

system, treatment for diabetes has come a long way. I realized that this wasn’t a death sentence... it was a wake-up call to live a healthy life.

I walked out of that room and immediately thought: “How lucky am I? I get to leave this hospital and go home. I have great support and I have access to innovative medicine that can treat my diabetes. Some people never get these opportunities.”

My journey of living well with diabetes began then. And to think it all started with that first visit to a diabetes education centre. I am proud to be living my dream life. And yes, with diabetes.

Shawn Shephard is a proud advocate for living well with diabetes, and is living his dream life. He is an internationally renowned inspirational speaker, author of Life is Sweet – Surviving Diabetes and a Whole Lot of Other Crazy Stuff, and is the host of the Sugar Free Shawn Show and The Diabetes Champions Network. Find out more about Shawn at www.sugarfreeshawn.com

Reminder

Health Research Caucus
Diabetes Research and
Innovation in Canada

Monday, May 12, 2014

4 p.m. to 7 p.m.

Room 256 S, Centre Block

Parliament Hill

SANOFI AND DIABETES

Proud of its century-long history in diabetes, Sanofi strives to help people manage the complex challenge of this disease by delivering innovative, integrated and personalized solutions. Driven by valuable insights that come from listening to and engaging with people living with diabetes, Sanofi is forming partnerships to offer diagnostics, therapies, services and devices, in addition to its injectable and oral medications for type 1 or type 2 diabetes.



Sanofi is the Platinum Sponsor of the
Diabetes Research and Innovation in Canada
Reception & Kiosk Session.

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CANADA'S POPULATION IS GETTING OLDER AND OBESITY IS ON THE RISE



These factors are significant reasons why there is an increasing burden of diabetes in the country.

According to the Public Health Agency of Canada, more than 2.4 million Canadians are living with diabetes, and with their chronic condition comes an increased likelihood of other health concerns; compared to non-diabetics, people with diabetes are three times more likely to be hospitalized with cardiovascular disease, 12 times more likely to have end-stage renal disease and almost 20 times more likely to be hospitalized with non-traumatic lower-limb amputations.

These increased health care needs carry an economic cost. The economic burden of diabetes in Canada is estimated to be \$13 billion, roughly double what it was in 2000.

Pharmaceutical innovation is working hard to discover and develop new and better treatments for people living with diabetes. It has reduced the clinical burden of the disease in the past, and with continued innovation will continue to do so into the future.

With on-going research, we may develop a compound to modify the metabolism of fat cells and treat diabetes-related obesity, or prevent the decline of beta-cell function by treatment with CD3 monoclonal antibodies.

For diabetics, this an exciting prospect. And it is pharmaceutical innovation that will take us there.

Russell Williams is President of Canada's Research-Based Pharmaceutical Companies (Rx&D)

**Rx&D is a Gold Sponsor of the
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THE DIABETES CHARTER FOR CANADA

People with diabetes can experience challenges in all aspects of their lives specifically related to their disease. These challenges can be addressed through appropriate support by governments and other diabetes stakeholders.



The Diabetes Charter for Canada (the Charter) provides statements that clearly outline what people with diabetes can and should expect from themselves and others in the diabetes community. *The Charter* confirms the rights and responsibilities of people living with diabetes, governments, service providers, employers, schools, preschools and daycare as well as the Canadian Diabetes Association (CDA).

It is hoped that, over time, the principles and values promoted within *the Charter* concerning diabetes prevention management, support and care will become the 'new standard' for people living with diabetes.

HIGHLIGHTS OF CANADIAN RESEARCH IN DIABETES (SOURCE: CIHR)

1921: Insulin changes lives of diabetics

Drs. Banting and Best, Collip and Macleod discover insulin, revolutionizing the treatment of diabetes, and give the Canadian scientific community its first Nobel Prize.

1999: Islet cell transplants for diabetics

Drs. Ray Rajotte and James Shapiro carry out the first islet cell transplant (the Edmonton Protocol) in people with diabetes, with many patients remaining insulin-free three years later.

2003: Curing diabetes - in mice

Dr. Mickie Bhatia uses stem cells to trigger

ASTRAZENECA'S CANADIAN CLINICAL STUDY TEAM

AstraZeneca is a leading research-based biopharmaceutical company focused on pushing the boundaries of science and innovation to deliver life-changing medicines – primarily in the areas of cancer, cardiovascular/metabolic disease and respiratory, inflammatory and autoimmune disease.



The company's Canadian Clinical Study Team is involved in more than 60 clinical research projects involving 3,000 Canadian patients. Very recently, the team has taken on leadership for a number of important global Phase III clinical programs, including the study of new molecules for the treatment of patients with severe, uncontrolled asthma and patients with non-small cell lung cancer.

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the growth of insulin-producing cells in the pancreas, effectively curing diabetes in mice.

2006: Am I DREAMing?

Drs. Hertzler Gerstein and Salim Yusuf complete the DREAM trial (Diabetes REduction Assessment with ramipril and rosiglitazone Medication) finding that rosiglitazone reduced the risk of developing Type 2 diabetes by 60%.

2008: Body signals may help beat diabetes

Dr. Tony Lam discovers a new signalling pathway between the gut, the brain and the liver that lowers blood sugar when activated, creating the possibility of new treatments for people with diabetes.

2010: Diabetes has impact in utero

Drs. Luigi Bouchard and Diane Brisson show that fetal exposure to gestational diabetes leads to epigenetic changes that affect how the body consumes and expends energy.

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