

Diabetes, stem cells & the Obama era

During the 2008 Presidential campaign, Barack Obama ran a television ad in which the mother of a child with Type 1 Diabetes said she supported then Senator Obama because stem cells were the best hope for a cure for the disease.

By J. Brandon Lowe

INDEED, THE OBAMA ERA is expected to bring the removal of President George W. Bush's federal restriction on embryonic stem cell research, which remains science's most promising lead for a cure for diabetes.

"I think the fact that we are having a change in administration will be a good thing for people with diabetes," says Knoxville native Beth Cantrell, whose son Robert, now a fifth grader, was diagnosed with Type 1 Diabetes at the age of two after going into a diabetic coma. "President Bush held us back for eight years."

Cantrell says that it can be confusing to discuss treatment and prevention of diabetes because people tend to be confused about the difference between Type 1 and Type 2 Diabetes.

"I think the whole power of knowledge of what each type of diabetes represents and how they differ is extremely



TYPE 1 vs TYPE 2: The Facts

TYPE 1

- Occurs because people have a total lack of insulin.
- Formerly called juvenile-onset or insulin-dependent diabetes
- Accounts for 5% to 10% of all people with diabetes.
- In Type 1 Diabetes, the body's immune system destroys the cells that release insulin, eventually eliminating insulin production from the body. Without insulin, cells cannot absorb sugar (glucose), which they need to produce energy.
- Type 1 diabetes cannot be prevented.

Warning signs of Type 1 Diabetes (these may occur suddenly):

- Extreme thirst
- Frequent urination
- Sudden vision changes
- Sugar in urine • Fruity, sweet, or wine-like odor on breath
- Increased appetite
- Sudden weight loss
- Drowsiness, lethargy
- Heavy, labored breathing
- Stupor, unconsciousness

important," Cantrell says. "Because you've got essentially two different diseases that share the same name, the differences need to be broadcast more, for the children's well being." (See below for more information on the differences between Type 1 and Type 2 Diabetes.)

In Knoxville, attention is being brought to Type 1 Diabetes via "The Walk to Cure Diabetes." One of Knoxville's largest charitable walks, the walk is put on by the local chapter of Juvenile Diabetes Research Foundation (JDRF), the world's leading organization in the push for research on a cure for Type 1 Diabetes.

The Cantrell family has been closely linked with the organization. Beth's husband Rob has been on the board of JDRF for six years, including three as president. Her brother, Mathew Sterchi, also currently serves on the

board. The Cantrell family also participates in the walk as a corporate sponsor through their company Stonemill Log Homes.

As faithful members of the organization, the Cantrells

have had the opportunity to join the national debate through JDRF's lobbying project, "Children's Congress." Children's Congress is one of the few lobbying projects in which children literally visit Capital Hill and meet with representatives to explain what its like to live with diabetes. Without a cure, children and adults with Type 1 Diabetes continue to test their blood sugar and give themselves insulin injections multiple times a day for the rest of their lives.

Robert Cantrell was a delegate for Children's Congress in June 2003 at the age of five. He met with Senators Bill Frist and Lamar Alexander, as well as Congressman Jimmy Duncan.

"These are perfectly normal kids who require extra planning," Cantrell says. "But frankly, I don't know how a lot of families manage."

For now, Cantrell and many others across the country remain hopeful that the changing of the guard will mark a new day for families struggling with this terrible disease. ☘

WALK TO CURE DIABETES

"The Walk to Cure Diabetes," Knoxville's annual walkathon to help raise funds to find a cure for Type 1 Diabetes & its complications, will be held May 2nd @ The World's Fair Park. This year's theme is Disco Against Diabetes!!

Find info @ walk.jdrf.org.



Each year, approximately 30,000 Americans are diagnosed with Type 1 Diabetes; over 15,000 are children. That's 35 children each and every day, **approximately 1 child per hour.**

★ Children's Congress will take place on June 21-23, 2009 in Washington, D.C.

TYPE 2

- Sufferers have too little insulin or cannot use insulin effectively
- In contrast to type 1 diabetes, insulin resistance is the main characteristic of type 2 diabetes. Resistance develops because of many factors, including genetics, obesity, increasing age, and having high blood sugar for a long time.
- Formerly called mature-onset or non-insulin-dependent diabetes.

- Can develop at any age, but most commonly becomes apparent during adulthood. (Though the incidence of Type 2 diabetes in children is rising.)
- Type 2 diabetes accounts for the vast majority of people with diabetes—90% to 95%. Information compiled from the American Diabetes Association.
- Type 2 diabetes can be prevented or delayed with a healthy lifestyle, including maintaining a healthy weight, eating sensibly, and exercising regularly.