

## CWSF 2012 - Charlottetown, Prince Edward Island



### Kassi Welch

#### Ultrasonic Assessment of Tissue Perfusion in an Islet Cell Transplantation Model

**Challenge:** Health

**Category:** Intermediate

**Region:** London District

**City:** London, ON

**School:** A.B. Lucas S.S.

**Abstract:** I used different types of ultrasounds modalities to view the blood perfusion surrounding a Cell Pouch(TM). The Cell Pouch(TM) is a product that has been developed by Sernova Corp. to help with the treatment and management of diabetes. It is placed at a site where insulin producing cells will be transplanted. I found that ultrasounds work to track angiogenesis in the tissue surrounding the implant.

#### Biography

I am currently a grade 10 student at A.B. Lucas Secondary School. Apart from participating in the science fair and Sanofi BioGENEious Challenge Canada, I play rugby and hockey at school. Outside of school I played Midget AA hockey, and Midget/ Int. box lacrosse. I am enrolled in the gifted program at school. I have always had an interest in science, especially medicine. My project involves combining the use of medical technology and ultrasound technology. I got to work with a private corporation called Sernova. They are developing Cell Pouch(TM) technology in the treatment and management of Diabetes. For my project I got to use ultrasounds to view blood vessels surrounding the implant in a model. I think participating in the science fair is a great experience. There are many opportunities to learn new things and meet new people.

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