

## CWSF 2012 - Charlottetown, Prince Edward Island



### Vicki Kleu

#### SA-SHA: Reducing Arterial Turbulence Through External Stents

**Challenge:** Health

**Category:** Intermediate

**Region:** Vancouver Island

**City:** Victoria, BC

**School:** Lambrick Park Secondary

**Abstract:** Pig arteries were injected with a resin to simulate plaque in human arteries. Arteries were measured for decreased flow rate. Stents were either inserted or applied externally. Flow rate was re-measured. More resin was injected. Stent effectiveness was reassessed. Loss in flow rate was significantly smaller in external stents than those with internal stents. External stenting might delay additional bypass surgery or angioplasty.

#### Biography

My name is Vicki Kleu. I am a grade 10 student from Victoria, BC. I am also a returning Canada Wide Science Fair participant working on an extension of last year's project. I've lived in Canada for five years. My South African accent, though still present, is now mingled with a Canadian drawl. This is my fourth year participating in science fair. I now spend more waking hours in a lab during science fair season than in my own house. When not in the lab, I am in the dance studio. Over the past two years I have investigated the possibility of replacing angioplasty with external stents. Realistically, my project cannot be taken further unless I work with mammals and surgically implant external stents. This project intrigues me so much so that I am now considering a career in medical research or medicine. I also have a cheeky side -- so I am told. Last year at the CWSF my crew and I made a delegate's bed disappear. Don't worry. We returned it -- eventually.

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