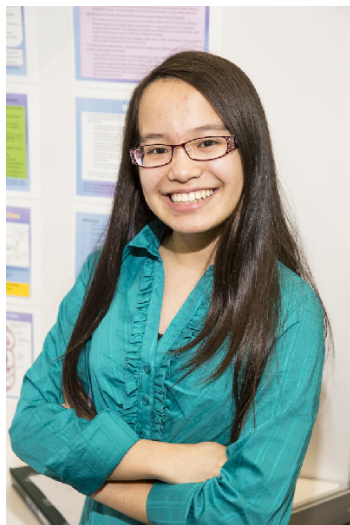


# CWSF 2015 - Fredericton, New Brunswick



## Catherine Beaudin

### Reversing Atherosclerosis: A Paradigm shift in cardiovascular disease treatment

**Challenge:** Health

**Category:** Intermediate

**Region:** Ottawa

**City:** Ottawa, ON

**School:** Colonel By S.S.

**Abstract:** A novel method of treating atherosclerosis using biocompatible solvents is presented. The project will present the concept, a theoretical framework for the treatment method as well as the experimental results of the in-vitro testing achieved to date. The metabolic pathways of the solvent and interaction with blood proteins will also be discussed and analyzed as a precursor to beginning an initial animal study in 2015.

#### Biography

Catherine Beaudin is currently studying in grade 9 of the IB Program at Colonel By High School in Ottawa, Canada. Catherine has a keen interest in science, mathematics, literature and music. She is also fluent in English, French and Mandarin. In 2013 Catherine won a Silver Medal at the Canada Wide Science Fair (CWSF) for her work on a high efficiency solar thermal collector as well as the junior challenge award for energy and in 2014 a Silver Medal for her work on "Mass transfer: A treatment for heart disease". In 2014, she won medals in a regional mathematics and public speaking competition. Catherine has been playing piano since the age of six and is currently preparing for her Performer's ARCT. In 2014 she won the highest mark on her Grade 10 RCM Practical examination for Ottawa. She has been the RCM Silver Medalist for Ontario, chosen to represent Ottawa at the provincial championship on 4 separate years and the winner of numerous trophies and scholarships. In 2014 Catherine began to study heart disease with the aim of applying engineering principles such as mass transfer to treat atherosclerosis. Her ambitions are to become a medical researcher and professional musician.

#### Awards

#### Value

Canadian Society for Medical Laboratory Science Award Intermediate Sponsor: Canadian Society for Medical Laboratory Science	\$750
S.M. Blair Family Foundation Award - Intermediate Sponsor: S.M. Blair Family Foundation	\$750
Excellence Award - Intermediate - Gold Medal Sponsor: Youth Science Canada	\$250
Western University Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: Western University	\$4 000
<b>Total</b>	<b>\$5 750</b>