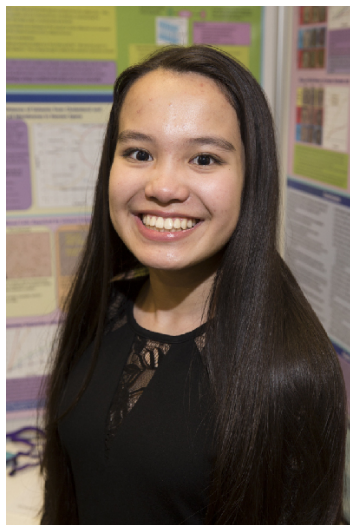


# CWSF 2016 - Montreal, Quebec



## Catherine Beaudin

### Reversing Atherosclerosis: Development of a Biocompatible Solvent

**Challenge:** Health

**Category:** Intermediate

**Region:** Ottawa

**City:** Ottawa, ON

**School:** College catholique Franco-Ouest

**Abstract:** A novel method of treating atherosclerosis using biocompatible solvents is presented. A theoretical framework is presented within the context of solubility theory. The suitability of several fatty acids as well as terpenoid compounds have been tested in-vitro in both water and blood and are showing promising results. The interaction of select solvents with cholesterol, the phospholipid bilayer of blood cells and lipoproteins is discussed.

#### Biography

Catherine Beaudin is a grade 10 student at the College Catholique Franco-Ouest in Ottawa, Canada. In 2013, Catherine won the Silver Medal and the junior energy challenge award at the Canada-Wide Science Fair for her work on a high efficiency solar thermal collector and in 2014/2015 the Silver and Gold medal for her research on heart disease. She also received two special awards from the S.M. Blair Family Foundation and the Canadian Society for Medical Laboratory Research. Catherine was featured in the winter 2015 issue of the Canadian Journal of Medical Laboratory Science. She has won medals at mathematics and public speaking competitions. She is currently preparing for her Piano Performer's ARCT. In 2014, she received the highest mark in the Ottawa region for her Grade 10 RCM Practical examination and in 2015, for her RCM theory exams. Catherine has been the RCM Gold Medalist of Ontario, chosen to represent Ottawa at the Provincial Championships for 4 consecutive years and the winner of numerous trophies and scholarships. In 2014, Catherine began to study heart disease, with the objective of applying solubility theory to treat atherosclerosis. She has filed several patents.

#### Awards

#### Value

Excellence Award - Intermediate - Silver Medal Sponsor: Youth Science Canada	
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
<b>Total</b>	<b>\$2 000</b>