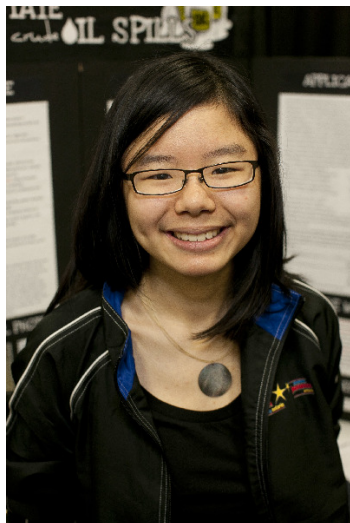


CWSF 2011 - Toronto, Ontario



Stephanie Chan

The Race to Remediate Crude Oil Spills

Challenge: Environment

Category: Senior

Region: Waterloo-Wellington

City: Cambridge, ON

School: St. John's-Kilmarnock School

Abstract: The effectiveness of crude oil biodegradation by *Pseudomonas aeruginosa* and *Aspergillus niger* was investigated in contaminated marine shoreline microcosms. Results indicated that the microcosm containing both microorganisms was superior in bioremediation power than either one alone. As shoreline cleanup costs can reach up to \$294,000/ton of oil, the combination, at \$192,858/ton, is cost-effective and works.

Biography

My name is Stephanie Chan, and I am a Grade 12 student at St. John's-Kilmarnock School in Breslau, Ontario. I represented the Waterloo-Wellington Region at the 2009 Canada-Wide Science and Engineering Fair, and was awarded a Biotechnology and Pharmaceutical Science Bronze Medal and an Automotive Silver Medal for my project on the production of ethanol from food wastes. At my school, I am on the Senior Girls' Basketball and Volleyball Teams, the debate team and two choirs. In addition to the sciences, I am very passionate about music, art and mathematics. Currently, I am working towards my certification as an Associate of The Royal Conservatory of Music (ARCT) in Piano Performance. After high school, I would like to pursue a career in medicine at both the undergraduate and postgraduate levels.

Awards

Value

Renewable Energy Award - Senior Sponsor: Ontario Power Generation	\$1 000
Excellence Award - Senior - Silver Medal Sponsor: Youth Science Canada	\$700
Dalhousie University Faculty of Science Entrance Scholarship Senior Silver Medallist - \$2500 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	\$2 500
UBC Science (Vancouver) Entrance Award Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: The University of British Columbia (Vancouver)	\$2 000
The University of Western Ontario Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Western Ontario	\$2 000
University of Ottawa Entrance Scholarship Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Ottawa	\$2 000
Total	\$10 200