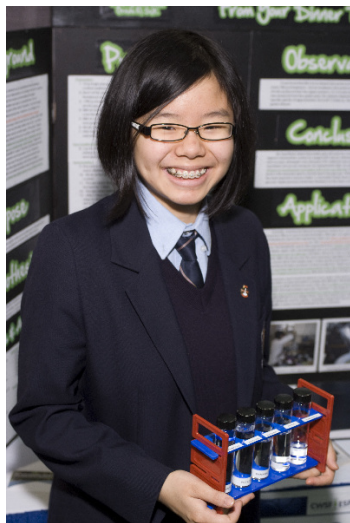


# CWSF 2009 - Winnipeg, Manitoba



## Stephanie Chan

### Power Your Car - From Your Dinner Table

**Division:** Biotechnology / Automotive

**Category:** Intermediate

**Region:** Waterloo-Wellington

**City:** Cambridge, ON

**School:** St. John's-Kilmarnock School

**Abstract:** This project used industrial organic waste (apple pomace, pineapple peel and core, potato peel, overripe banana) to produce a commercially viable biofuel using *Saccharomyces bayanus* yeast. Each feedstock was compared in terms of ethanol yield and the cost-effectiveness of production. Potato peel was found to yield the most ethanol, but apple pomace was the most cost-effective due to the cost-limiting factor of starch-converting enzymes.

### Biography

I am a Grade 10 student who likes participating in all kinds of activities, both inside and outside of school. I play varsity basketball and volleyball, and am a member of the volleyball team that recently won the U16 CISAA Championship. Academically, I've been a top student at my school for the past 6 years. I enjoy participating in debates and math contests, and was the school champion in the American Mathematics Contest for my grade. I also like writing, and one of my poems won first place in the Elora Writing Festival Competition last year. Furthermore, I'm part of two school choirs. I am an avid piano player and was invited to participate in the Kiwanis provincial finals in 2007, and I will be taking my RCM Grade 10 exam this June. In my spare time, I like to read, surf the Internet, play video games, and ride my bike around the neighbourhood. I really love travelling the world, and I have been to many countries including Japan, England, and Russia. I hope to attend the University of Toronto to become a medical professional and to work with Doctors Without Borders.

### Awards

### Value

The University of Western Ontario Scholarship Silver Medallist - \$1500 Entrance Scholarship Sponsor: University of Western Ontario	\$1 500
The University of Western Ontario Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Western Ontario	\$1 000
Bronze Medal - Biotechnology & Pharmaceutical Sciences Intermediate Sponsor: Youth Science Canada	\$300
Silver Medal - Automotive - Intermediate Sponsor: AUTO21	\$700
<b>Total</b>	<b>\$3 500</b>