

# CWSF 2010 - Peterborough, Ontario



## Danielle Xu, Michael Shao

### Cytotoxicity of Dandelion Extracts on Melanoma Cells

**Division:** Earth & Environmental Sciences

**Category:** Senior

**Region:** Greater Vancouver

**City:** Richmond, BC, Vancouver, BC

**School:** Sir Winston Churchill Secondary

**Abstract:** Dandelion has been used extensively in Aboriginal and TCM medication and this project sought to determine whether it had any inhibitory effects on melanoma. Three cell lines (two cancer, one control) were treated with three dandelion samples. The results supported the inhibitory action of one species (*T. Mongolicum*) and through further experiments with the chemical constituents we hope to discover a novel cancer inhibiting phytochemical.

#### Biographies

**Danielle** - Danielle Xu was born in China but immigrated to Canada at a young age and has previously lived in Montreal and Regina. She has attended various programs in the course of her schooling including the Montessori program, the District Incentive Program and currently the International Baccalaureate program at Sir Winston Churchill Secondary. Danielle does a variety of volunteer work and also is active in school clubs. She enjoys reading and can often be found bumping into walls with her nose in a book. However, Danielle also enjoys activities such as snowboarding, windsurfing and jogging. In the future she hopes to enter a post-secondary medical p...

**Michael** - Michael is an International Baccalaureate diploma candidate at Sir Winston Churchill Secondary School. He is especially interested in all sciences but in particular, chemistry and biology. Michael plans to pursue further education in the sciences in university. In school, Michael helps run a school newspaper with two other students and is also part of Churchill's dissection club and science club. Michael also helps teach students at David Lloyd George Elementary school how to read more proficiently.

#### Awards

#### Value

Statistical Society of Canada Award Sponsor: Statistical Society of Canada	\$1 000
The University of Western Ontario Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Western Ontario	\$1 000
University of Ottawa Entrance Scholarship Senior Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Ottawa	\$1 000
Bronze Medal - Biotechnology & Pharmaceutical Sciences - Senior Sponsor: Youth Science Canada	\$300
<b>Total</b>	<b>\$3 300</b>