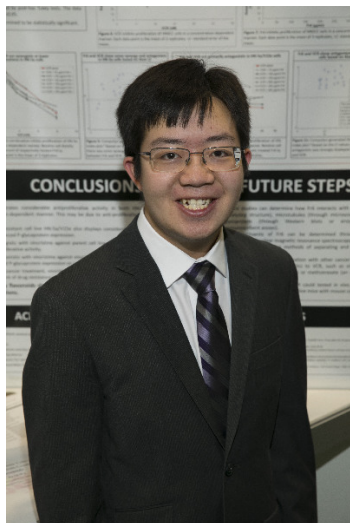


# CWSF 2017 - Regina, Saskatchewan



## David Wu

### Sensitizing Human Tumour Cells to Cancer Drugs with Cranberry Flavonoids

**Challenge:** Health

**Category:** Intermediate

**Region:** Thames Valley

**City:** London, ON

**School:** Central S.S.

**Abstract:** Cancer drug resistance plays a major role in complications during cancer treatment. Drug combinations are used to overcome this. In this project, parental and drug-resistant head-and-neck cancer cells were treated with cranberry extract (Fr6) and vincristine, studying their combined effect. It was found that Fr6 can effectively inhibit cancer proliferation. Fr6 synergizes with vincristine, but this synergistic effect only exists in non-resistant cells.

#### Biography

My name is David Wu, and I am a Grade 10 at London Central S.S. in London, ON. Ever since kindergarten, I've had a great passion for all areas of science, particularly biochemistry and medicine. Outside of science, I have many other interests as well, such as music, chess, and business (I have participated in the Kiwanis Music Festival, chess tournaments, and DECA with excellent results each time). Through my school career, I've had many opportunities to engage in fascinating topics of science, through my own initiative and help from others. My first science fair was in Grade 2; my science teacher let me participate in the 7/8 science fair with my project on inheritance. I have been participating in science fairs since! This year, my project came to be as I researched ways to enhance the effectiveness of chemotherapy on cancer treatment, where I found out about the potential of plant flavonoids as anticancer agents. For all newcomers to the science fair, make a project on a topic you are passionate about, to follow the scientific method, and to be confident in your material! Scientific investigations are key to helping society and discovering new things about our world.

#### 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>