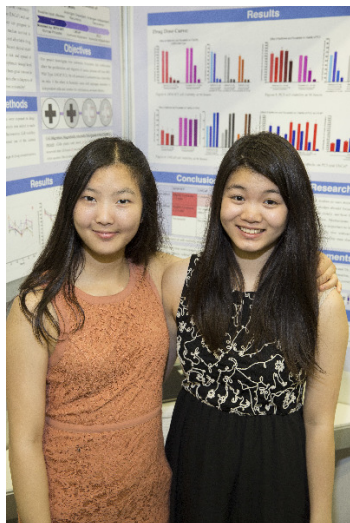


# CWSF 2014 - Windsor, Ontario



## Edwina Liu, Che-Min Lee

### Metabolism: The Achilles Heel of Prostate Cancer?

**Challenge:** Health

**Category:** Senior

**Region:** Edmonton

**City:** Edmonton, AB

**School:** Old Scona School

**Abstract:** Metformin and fluvastatin have originally been used to treat type II diabetes. Previous studies indicate that these drugs affect the migration and proliferation of cancer cells. Our study is the first to test them in combination and quantify the drugs' antitumoral effects. We found fluvastatin has cytotoxic effects whereas metformin inhibits migration. However, in combination, they can have greater cytotoxic effects.

#### Biographies

Edwina - Hi! I'm Edwina Liu, a grade 11 student from Alberta, and this is my first year attending Canada Wide Science Fair! Despite a definite interest in the oncology field, I've always been intimidated by the prospect of conducting scientific research, feeling inadequate because of my lack of resources and experience. However, after an inspiring summer at Shad Valley and gaining confidence through my various activities, including Students' Union, debate, badminton and oil-painting, I realized that youth ineptitude is only a myth. With this confidence and determination, I created a project to test two metabolic drugs on prostate cancer-- something I ...

Che-Min - Having been that kid who made a beeline for the biology section in the library at age 8, I knew that I would be doing science for the rest of my life. Despite this, I still love music, origami, and handball which have helped me grow as a person and even a scientist. The great thing about science is that those who love it are willing to spread this passion through knowledge and guidance. The lab my partner and I contacted was full of these people. Dr. John Lewis, who was the head of the Lewis lab, helped us develop our idea and introduced us to a mentor who supervised our project. Dr. Jihane Mriouah was extraordinary in the amount of time that...

#### Awards

#### Value

Challenge Award - Health - Senior Sponsor: Canadian Institutes of Health Research	\$1 000
Excellence Award - Senior - Gold Medal Sponsor: Youth Science Canada	\$700
Dalhousie University Faculty of Science Entrance Scholarship Senior Gold Medallist - \$5000 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	\$5 000
UBC Science (Vancouver) Entrance Award Senior Gold Medallist - \$4000 Entrance Scholarship Sponsor: The University of British Columbia (Vancouver)	\$4 000
University of Manitoba Entrance Scholarship Senior Gold Medallist - \$5000 Entrance Scholarship Sponsor: University of Manitoba	\$5 000
University of Ottawa Entrance Scholarship Senior Gold Medallist - \$4,000 Entrance Scholarship Sponsor: University of Ottawa	\$4 000
Western University Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: Western University	\$4 000
University of Windsor Entrance Scholarship Senior Challenge Award Recipient - \$2000 Entrance Scholarship Sponsor: University of Windsor	\$2 000
<b>Total</b>	<b>\$25 700</b>

Youth Science Canada  
PO Box 297  
Pickering ON L1V 2R4  
www.youthscience.ca / info@youthscience.ca  
416-341-0040