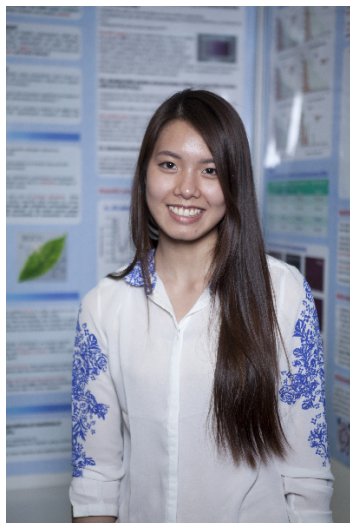


# CWSF 2013 - Lethbridge, Alberta



## Linda Lu

### Antioxidants Induce Severe Death to Human Normal Cells

**Challenge:** Health

**Category:** Senior

**Region:** Waterloo-Wellington

**City:** Waterloo, ON

**School:** Waterloo Collegiate Institute

**Abstract:** Antioxidants is widely thought to benefit health. This project shows strikingly that green tea and its extract (EGCG) induced significant death and DNA damage in human lung and skin normal cells. The results provide a compelling explanation why antioxidants increased lung and skin cancers observed in clinical trials, and unravel a new damaging mechanism. This study may lead to effective prevention and therapies of diseases.

#### Biography

My name is Linda Lu, a Grade 12 student at Waterloo Collegiate Institute (WCI), Ontario. From participating in MusicFest Nationals with WCI's Senior Orchestra to playing provincial Badminton tournaments, my high-school experience has been full of excitement. Initiating from an unexpected gift (a dietary antioxidant product called OPC-3®) received by my family, my curiosity drove me to do literature searches on health effects of antioxidants. Disappointed in lack of detailed experiments done on human normal cells, I began my own research. Exciting findings were then made. Although I'm presenting my findings, my research won't stop here. I know that this will be a new direction for research into the initiation, prevention and therapies of human diseases. I am determined to continue my research behind the new reductive mechanism that I've discovered. Science Fair has allowed me to apply what I've learnt in classroom and make a difference in the real world. I would really encourage students to participate in science fairs. You can learn so much and meet so many different people. Choose a topic you really love and ask yourself a question about it. That initial spark of curiosity can lead to many great things, you may be surprised.

#### Awards

#### Value

Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	\$100
University of Ottawa Entrance Scholarship Senior Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Ottawa	\$1 000
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
<b>Total</b>	<b>\$2 100</b>