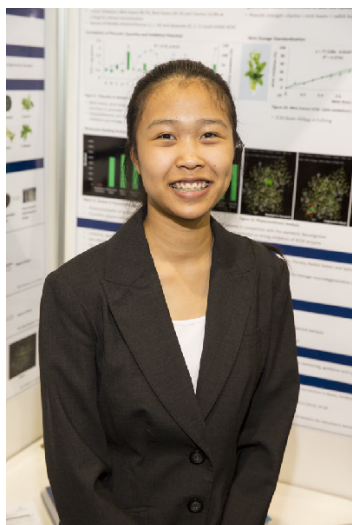


## CWSF 2015 - Fredericton, New Brunswick



### Melody Song

#### Food for Thought: Preventive Management of Neurodegenerative Disorders

**Challenge:** Health

**Category:** Intermediate

**Region:** Saskatoon

**City:** Saskatoon, SK

**School:** Evan Hardy Collegiate

**Abstract:** My project analyzed common plant-based foods for acetylcholinesterase inhibition activity, leading to potential drug development and diet-based management of neurodegenerative disorders. Ellman's Test and Folin-Ciocalteu Assay revealed mint leaves, beet leaves and cilantro had enriched phenolic composition and significant acetylcholinesterase inhibition activity. Chemical docking analysis discovered beet phytoconstituents had strong acetylcholinesterase inhibitory potential. This

#### Biography

My name is Melody Song and I am in the Grade 9 Gifted Student program at Evan Hardy Collegiate in Saskatoon, Saskatchewan. For my project, I analyzed common plant-based foods for their acetylcholinesterase inhibition activity, which can be used in potential drug development and in diet-based disease preventive management strategies. I was aware that over 1 billion people are affected by neural disorders worldwide and I have always been interested in food nutrition. I thought about how I could use food nutrition to benefit people affected by these neural disorders and that inspired my project. In the future, I hope to investigate other dietary treatment options for neural disease management, creating insights into new medications for these diseases. When I am not in the lab or at school, you can find me playing basketball, volleyball or the piano. I also enjoy making healthy foods, listening to music, and developing sustainable solutions to environmental problems! My advice for students interested in doing a science fair project is be passionate and work hard on your project! If you are interested and passionate, it will be easier to understand, gain knowledge on the subject and work hard on your project.

#### Awards

#### Value

Excellence Award - Intermediate - Gold Medal Sponsor: Youth Science Canada	\$250
Western University Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: Western University	\$4 000
<b>Total</b>	<b>\$4 250</b>