

CWSF 2010 - Peterborough, Ontario



Jennifer Mei Ling Campbell

Sweet Poison: An evaluation of aspartame peptide bond stability and novel analogu

Division: International

Category: Senior

Region: Greater Vancouver

City: Vancouver, BC

School: David Thompson Secondary

Abstract: Aspartame is an artificial sweetener commonly found in food products. However, individuals afflicted by Phenylketonuria, a disorder characterized by a deficiency in the enzyme which metabolizes phenylalanine, cannot consume this sweetener. The purpose of this project is to design new artificial sweeteners for PKU patients without the health risks associated with aspartame using comprehensive enzymatic studies, nuclear magnetic resonance analysis and quantum chemical calculations.

Biography

Science has always been one of my passions, and my involvement in science fairs started in 8th grade. Apart from science fairs however, I also volunteer around the community as a first aid attendant with St. John's ambulance. In addition to completing my Grade 10 Royal Conservatory of for piano, I am also working on my Grade 10 Violin Certification. I enjoy playing in the Vancouver Youth Symphony Orchestra. In my spare time, I often play music at various senior homes and hospitals. One interesting fact about me: I can speak Chinese fluently.

Awards

Value

Honourable Mention - Health Sciences - Senior Sponsor: Canadian Institutes of Health Research	\$100
Total	\$100