

CWSF 2013 - Lethbridge, Alberta



Varsha Jayasankar

Identification of Novel Anti-Microbial Compounds in Curcuma amada

Challenge: Discovery

Category: Senior

Region: Niagara

City: St. Catharines, ON

School: Sir Winston Churchill

Abstract: Due to recent outbreaks of antibiotic resistant bacteria, new alternative drugs are being researched. This project researches an extract created from mango ginger, titled "CACE" (Curcuma Amada Chloroform Extract), and its use against plant and human pathogenic bacteria. CACE is extremely effective in inhibiting the growth of two plant and two human pathogens. Chromatography and Mass Spectrometry was used to identify antimicrobial compound(s).

Biography

Varsha Jayasankar is a junior at Sir Winston Churchill Secondary School in St. Catharines. She was born in the United States, before moving to Canada in 2002. Her major interest is our environment, the central theme of her science fair projects since grade 6. She has won many accolades and awards in science fairs, including silver at the 2012 CWSF, Best Commercialization Potential at the Sanofi BioGENEius Challenge 2012 and a gold medal at the 2013 NRSEF. Varsha's efforts helped her win the Elementary Age Environmentalist award in the Niagara region in 2009. She is in numerous philanthropic activities such as fundraising to facilitate eye surgeries to the less-fortunate in India and donating to orphanages. Music is also one of Varsha's interests, as she is in Grade 8 piano and is a member of her high school's orchestra, playing the violin. She also is a member of her school's Reach team, qualifying for the Ontario Provincial Championships. Varsha is also a member of her school's gymnastics team, specializing on the balance beam and vault. Varsha's other interests include drama and dance. With a 96% average, Varsha plans to attend University, pursuing a degree in biological science.

Awards

Value

The Manning Innovation Achievement Award Sponsor: Ernest C. Manning Awards Foundation	\$500
Challenge Award - Discovery - Senior Sponsor: Youth Science Canada	\$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
Total	\$24 200

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