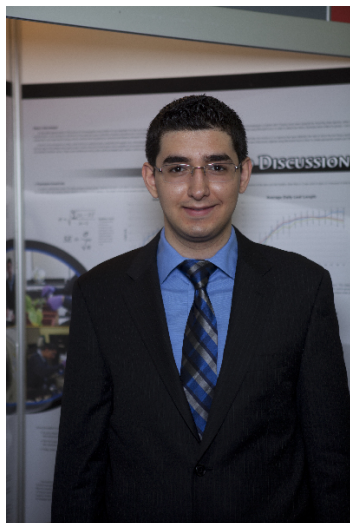


CWSF 2013 - Lethbridge, Alberta



Bekir Buyukkocabas

Utilizing Bioassays to Explore the Effects Mediated by Cigarette Butts on Plants

Challenge: Environment

Category: Senior

Region: Toronto

City: Ontario, ON

School: Nil Academy

Abstract: With global tobacco consumption increasing, hundreds of acutely toxic chemicals are constantly leached into our environments via the cellulose acetate filter. When improperly discarded, they can cause devastating changes within plant species; to demonstrate this, *Phaseolus vulgaris* plants were grown in the presence of cigarette butts, and their biochemical and physiological changes were tracked. Overall, cigarette butts afflicted unforeseen changes to the studied plant species.

Biography

Ever since I have been able to consciously observe my surroundings, science has been an integral component of my worldview and has come to ultimately define me on the individual plane. As a secondary school student, I have been an active member in science clubs, a key leader in student council initiatives, and have fully developed myself as a veteran science fair competitor. Science fairs have given me the chance to both meet like-minded individuals and express my creativity in a means that I am comfortable with. Aside from such pursuits, I have volunteered as a tutor within and outside of my school, and I continually foster an environment of learning and curiosity amongst the individuals around me. Furthermore, I enjoy to read, solve problems, ponder mathematical and logical paradoxes, and contemplate world issues. As a classical music connoisseur, I am well-versed in a variety of classical art forms and play the violin at an intermediate level. Being the ambitious person I am, it is hoped that I will be able to contribute to the body of knowledge contained within chemistry and/or physics through theoretical study, as they are the two subjects I am most ardently passionate about!

Awards

Value

Excellence Award - Senior - Silver Medal Sponsor: Youth Science Canada	\$300
Dalhousie University Faculty of Science Entrance Scholarship Senior Silver Medallist - \$2500 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	\$2 500
UBC Science (Vancouver) Entrance Award Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: The University of British Columbia (Vancouver)	\$2 000
University of Ottawa Entrance Scholarship Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Ottawa	\$2 000
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
Total	\$8 800