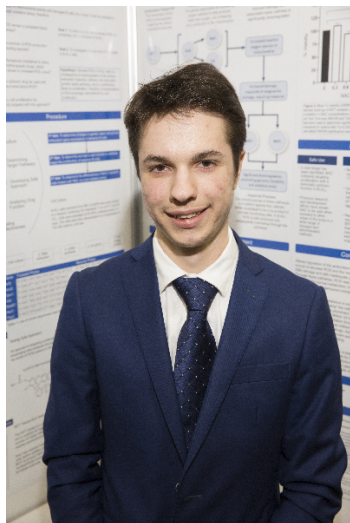


CWSF 2019 - Fredericton, New Brunswick



James Iansavitchous

B-ALL Leukemia Treatment: Exploiting Dependency on ROS to Prevent Proliferation

Challenge: Health

Category: Senior

Region: Thames Valley

City: London, ON

School: A.B. Lucas S.S.

Abstract: Investigation of genetic alterations in important antioxidant response and repair pathways in leukemic B-cells revealed a dependency in maintaining a state of oxidative stress. N-acetylcysteine effectively prevented rapid growth of the cells through reactive oxygen species scavenging, a safer mechanism than existing treatments. With established uses in the healthcare system, N-acetylcysteine can be efficiently repurposed for B-cell acute lymphoblastic leukemia treatment.

Biography

My name is James Iansavitchous and I am a grade 11 student attending A.B. Lucas Secondary School. Apart from participating in science fairs, I also regularly write national and international math contests. I enjoy playing chess, and am actively involved in teaching chess to younger kids, organizing tournaments, as well as competing at provincial level competitions myself. In school, I am involved with our HOSA chapter, chess club, and Science Olympics club. Taking concepts learned in the classroom and applying them motivated me to work in a lab setting. With this project, I hope to further investigate effective routes of treatment for n-acetylcysteine in B-ALL.

Awards

Value

University of Ottawa Undergraduate Research Scholarship Award Senior Sponsor: University of Ottawa, Faculty of Science	\$10 000
Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	
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
Total	\$12 000