



CWSF 2019 - Fredericton, New Brunswick



Biography

My name is James lansavitchous 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.

James lansavitchous

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.

Awards	Value
University of Ottawa Undergraduate Research Scholarship Award	\$10 000
Senior	
Sponsor: University of Ottawa, Faculty of Science	
Excellence Award - Senior - Bronze Medal	
Sponsor: Youth Science Canada	
University of Ottawa Entrance Scholarship	\$1 000
Senior Bronze Medallist - \$1000 Entrance Scholarship	
Sponsor: University of Ottawa	
Western University Scholarship	\$1 000
Bronze Medallist - \$1000 Entrance Scholarship	
Sponsor: Western University	
Total	\$12 000



