



CWSF 2018 - Ottawa, Ontario



Nick Murray

Low-Cost, Point-of-Care Skin Cancer Detection

Challenge: Innovation Category: Senior

Region: Greater Vancouver
City: Vancouver, BC
School: Templeton Secondary

Abstract: This project was focused on the design, construction and validation of the

first ever low-cost and portable device for detecting and staging skin cancers and skin diseases. This novel device is interesting because it could potentially solve the problem of a lack of dermatologists in resource poor settings. Hopefully, it can one day be used to detect early stage skin

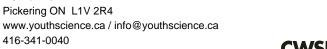
cancers and save lives.

Biography

The inspiration for my project came from my realization that there is not really a low-cost and quantitative way to detect skin cancer. I decided to set out to solve this problem. In the future, I hope that my research could eventually lead to a real medical device that would be used all around the world for detecting skin cancers. My advice for other students is to dream big. Some projects may not be feasible due to funding or scale, but it is good to be ambitious! Through my school, I am a part of the STEM program, where we apply our math and physics knowledge to solve real world engineering problems, like building a smart greenhouse or a solar tracker. I have also founded a STEM entrepreneurship speaker series, and a journal to chronicle what we learn in the STEM program. In university I will likely study engineering physics, to blend my passions for physics, medicine and technology. I hope to eventually become a clinician scientist, or a Professor of Physics and Biomedical Engineering at a research university.

Awards	Value
York University STEM Entrepreneur Bootcamp Scholarship Awards	\$2 500
All categories	
Sponsor: York University, Lassonde School of Engineering	
Youth Can Innovate Awards - Senior	\$1 000
Sponsor: The Gwyn Morgan and Patricia Trottier Foundation	
Youth Can Innovate Awards - Senior	\$7 000
Sponsor: The Gwyn Morgan and Patricia Trottier Foundation	
Excellence Award - Senior - Silver Medal	
Sponsor: Youth Science Canada	
Carleton University Entrance Award	\$2 000
Senior Silver Medallist - \$2,000 Entrance Award	
Sponsor: Carleton University	
Dalhousie University Faculty of Science Entrance Scholarship	\$2 500
Senior Silver Medallist - \$2500 Entrance Scholarship	
Sponsor: Dalhousie University, Faculty of Science	
UBC Science (Vancouver) Entrance Award	\$2 000
Senior Silver Medallist - \$2000 Entrance Scholarship	
Sponsor: The University of British Columbia (Vancouver)	
University of Ottawa Entrance Scholarship	\$2 000
Senior Silver Medallist - \$2000 Entrance Scholarship	
Sponsor: University of Ottawa	
Western University Scholarship	\$2 000
Silver Medallist - \$2000 Entrance Scholarship	
Sponsor: Western University	
Total	\$21 000





Youth Science Canada

PO Box 297

