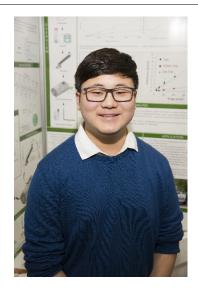




CWSF 2019 - Fredericton, New Brunswick



Biography

Hello! I'm Jesse Lee, a grade 11 high school student from Western Canada High School, as well as a student researcher at both the University of Calgary and the University of Alberta. When I'm not in the lab, you can find me re-watching episodes of House M.D. or writing down new ideas. When I am thinking of new ideas, I find it helpful to look at what's going on in the world. For example, this marijuana impairment detection device idea originated from Canada's legalization of recreational use of cannabis. Aside from improving this project, I have a few plans on what to do next. However, that's a secret for now, so stay tuned! If you're thinking of starting a project yourself, my advice would be to take some inspiration for the world's greatest engineer of all: mother nature. She has billions of years of experience on earth, and it may be helpful to learn a thing or two. Some notable examples of nature-inspired inventions include the bullet train (which was modeled off the beak of a bird), and even flight (which was created after studying the flight of birds).

Jesse Lee

Protein Based Biosensor: Roadside Detection of THC

Challenge:	Innovation
Category:	Senior
Region:	Calgary Youth
City:	Calgary, AB
School:	Western Canada Senior High School
Abstract:	Inspired by the growing cannabis legalization movement, this innovation has the potential to solve an upcoming problem. Since the new laws were passed, we are seeing an increase in vehicular accidents from people driving under the influence of marijuana. With no equivalent of the alcohol breathalyzer for cannabis, this project aims to create a sensor capable of not only detecting but quantifying cannabis impairment.

Awards	Value
Excellence Award - Senior - Silver Medal	
Sponsor: Youth Science Canada	
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 New Brunswick Canada-Wide Science Fair Scholarship	\$2 500
Silver Medallist - \$2500 Entrance Scholarship	
Sponsor: University of New Brunswick	
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	\$11 000



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

