



CWSF 2016 - Montreal, Quebec



Biography

I am Ameer Farrukh. I am attending Holy Heart of Mary High School as a grade 12 student. I enjoy playing soccer and also swimming. I volunteer at the local Janeway Hospital and as a tutor. In school, I enjoy every science subject as well as mathematics, and currently am a dual-enrollment student, taking courses at Memorial University. I intend to hopefully pursue a degree in biochemistry or Chemical Engineering, and then proceed on to completing my degree in Medicine. I hope to become a Cardiologist in the future. This specifically inspired me to complete a project related to biochemistry and biology, in the field of Medicine and Biomedical Sciences, which was related to the Health and Toxicology of the Heart. I am particularly astounded by the heart's vital role, and this motivated me to complete a related project. I plan to expand this project in the future, and hopefully use it as a diagnosis technique to better detect cardiotoxicity. I hope I can expand my project and implement new biomarkers to detect various conditions within the heart. Personally, completing a project requires patience, motivation, and trust in yourself that everything will work out if you dedicate and work hard.

Ameer Farrukh

Implementing Biomarkers in Cardiomyocyte Cells for the use in Cardiotoxicity Scr

Challenge:	Health
Category:	Senior
Region:	Eastern Newfoundland
City:	St. John's, NL
School:	Holy Heart High School
Abstract:	This project focuses on studying cardiotoxicity within cardiomyocytes, with the use of implementing relevant imported biomarkers for its use in screening tests. It implemented a biomarker, through viral infection, called mKeima which studied and detected mitophagy and mitochondrial degradation during cardiotoxicity. We also implemented a GCaMP indicator for its use in studying calcium ion muscle contraction.

Awards	Value
Excellence Award - Senior - Silver Medal	
Sponsor: Youth Science Canada	
Dalhousie University Faculty of Science Entrance Scholarship	
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	\$8 500



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