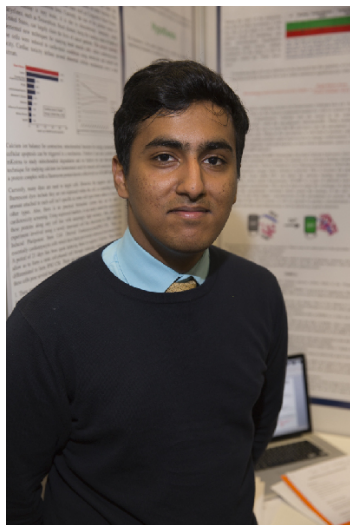


CWSF 2016 - Montreal, Quebec



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.

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.

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	\$2 500
UBC Science (Vancouver) Entrance Award Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: The University of British Columbia (Vancouver)	\$2 000
University of Ottawa Entrance Scholarship Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Ottawa	\$2 000
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
Total	\$8 500

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