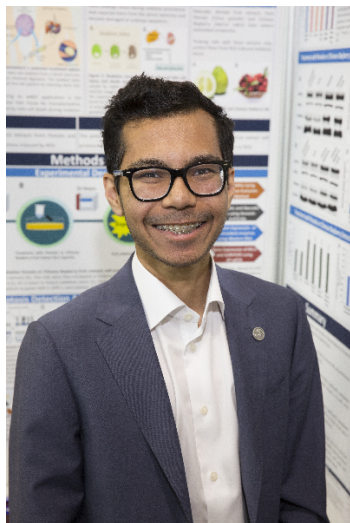


# CWSF 2019 - Fredericton, New Brunswick



## Muhammad Shahzad

### Pomelo and Chinese Bayberry Extracts Protect Mouse ? Cells from Oxidative Stress

**Challenge:** Health

**Category:** Senior

**Region:** Edmonton

**City:** Edmonton, AB

**School:** Old Scona School

**Abstract:** Islet transplantation is a promising treatment option for Type-1 Diabetes. Islets experience oxidative stress and die during isolation, worsening existing issues of islet tissue scarcity. Pomelo and Chinese Bayberry have potent antioxidant properties. I found treatment with Pomelo or Chinese Bayberry extracts protected mouse islet beta cells from oxidative stress, suggesting this strategy may alleviate issues of organ scarcity by increasing islet yield following isolation.

#### Biography

My name is Muhammad Shahzad and I am from Edmonton, Alberta! I am a grade 11 student attending Old Scona Academic High School. Science has always had a special place in my heart. From a very young age, I always wondered about how our world works! Some of the most interesting books I read as a kid were science encyclopedias that presented information about things as little as cells and as large as the Sun! Now in grade 11, the opportunity to not only conduct research in a university lab but also do work that may improve the lives of Type 1 Diabetes patients has truly been the highlight of my high school life. I have witnessed people I love suffer from this disease so the fact that I may be doing my small part to improve their lives is a dream come true. This will be my first Canada Wide Science Fair and I can't wait to represent Alberta at the national level!!

#### Awards

#### Value

Canadian Society for Clinical Chemists Award - Senior Sponsor: Canadian Society for Clinical Chemists	\$1 000
Canadian Young Researcher Award - Senior Sponsor: Canadian Science Publishing and STEM Fellowship	\$1 000
Excellence Award - Senior - Gold Medal Sponsor: Youth Science Canada	
Dalhousie University Faculty of Science Entrance Scholarship Senior Gold Medallist - \$5000 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	\$5 000
UBC Science (Vancouver) Entrance Award Senior Gold Medallist - \$4000 Entrance Scholarship Sponsor: The University of British Columbia (Vancouver)	\$4 000
University of Manitoba Entrance Scholarship Senior Gold Medallist - \$5000 Entrance Scholarship Sponsor: University of Manitoba	\$5 000
University of New Brunswick Canada-Wide Science Fair Scholarship Gold Medallist - \$5000 Entrance Scholarship Sponsor: University of New Brunswick	\$5 000
University of Ottawa Entrance Scholarship Senior Gold Medallist - \$4,000 Entrance Scholarship Sponsor: University of Ottawa	\$4 000
Western University Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: Western University	\$4 000
<b>Total</b>	<b>\$29 000</b>