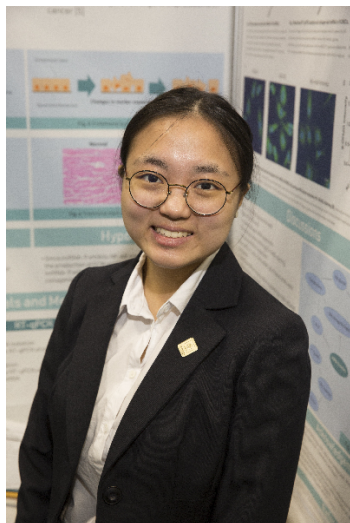


# CWSF 2019 - Fredericton, New Brunswick



## Tori Chen

### Gene Therapy: A Treatment for Diabetic Cardiomyopathy

**Challenge:** Health

**Category:** Senior

**Region:** Thames Valley

**City:** London, ON

**School:** A.B. Lucas S.S.

**Abstract:** Diabetes affects 425 million people globally and is dangerous because it causes many illnesses, called diabetic complications; the most severe of which is diabetic cardiomyopathy, disease of the heart. Diabetic cardiomyopathy occurs when diabetes causes cell signalling errors in blood vessels of the heart. In my project, I used an up-and-coming cancer treatment (microRNA-9) to prevent diabetic cardiomyopathy.

#### Biography

Tori Chen is a grade 11 student in London, Ontario. The things she loves most in the world are home-cooked meals and spending time with animals. During her free time, she can be found volunteering at her local cat shelter or working on art projects. Her passions lie in the arts and sciences; she loves all visual arts, especially photography and painting. At school, she plays the flute in orchestra band and is part of the music council; she studied piano at the grade 9 level and has won many solo competitions. In terms of sports, she has participated in volleyball, soccer, curling, and badminton teams. She also has a background in drama, playing lead roles in two elementary school plays, and was casted in her school's rendition of Hamlet. Tori has a strong English background, achieving the gifted English award at her school in grade 9 and 10; she also participated in many math competitions, winning the top score in her schools from grade 4 to 7 in the Byron-Germain, Fibonacci, Pythagoras, and Gauss Math Competition. With great interest in medical science and microbiology, Tori wishes to pursue a career in medicine or veterinary science.

#### Awards

#### Value

Excellence Award - Senior - Gold Medal Sponsor: Youth Science Canada	
Challenge Award - Health - Senior 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>\$27 000</b>