



## CWSF 2017 - Regina, Saskatchewan



## Biography

My name is Justin Lin and I am in Grade 12 at SJR school in Winnipeg, Manitoba. My hobbies include playing piano and debating. In my spare time, I do a lot of volunteering at various organizations, although I especially enjoy peer tutoring. I also play sports such as basketball, soccer and ultimate frisbee. I hope to pursue a career in medicine or research. This will be my third and final year at CWSF. After doing two years of cardiovascular research, I decided to try something new this year by working in a neuroscience lab. My project developed a new strategy to target ALS, a devastating neurodegenerative disease that results in death 3-5 years after diagnosis. My results are very promising and my lab is now testing the peptide-based treatment on ALS mouse models. To any other students thinking about doing a project, I would recommend following your passions and finding a mentor who is willing to work closely with you. It is also important to have faith in yourself and persevere; I believe that the research conducted by high school students can change the world!

## **Justin Lin**

## Peptide-Directed Knockdown of Misfolded SOD1 by Chaperone ? Mediated Autophagy

Challenge:	Health
Category:	Senior
Region:	Manitoba Schools Science Symposium
City:	Winnipeg, MB
School:	St. John's Ravenscourt School
Abstract:	ALS is a neurodegenerative disease that results in death 3-5 years
	following diagnosis. Currently, there is no cure or definitive diagnostic test
	for ALS. This project investigates two novel techniques: firstly, we
	demonstrate the potential of our modified ELISA technique as a diagnostic
	tool. We also show our TAT-CT4-CTM peptide's ability to knock down
	ALS-associated misfolded SOD1; this peptide could be a cure for ALS.

Awards	Value
Canadian Society for Clinical Chemists Award - Senior	\$1 000
Sponsor: Canadian Society for Clinical Chemists	
Youth Can Innovate Awards - Senior	\$1 000
Sponsor: The Gwyn Morgan and Patricia Trottier Foundation	
Youth Can Innovate Awards - Senior	\$7 000
Sponsor: The Gwyn Morgan and Patricia Trottier Foundation	
Excellence Award - Senior - Gold Medal	\$250
Sponsor: Youth Science Canada	
Dalhousie University Faculty of Science Entrance Scholarship	\$5 000
Senior Gold Medallist - \$5000 Entrance Scholarship	
Sponsor: Dalhousie University, Faculty of Science	
UBC Science (Vancouver) Entrance Award	\$4 000
Senior Gold Medallist - \$4000 Entrance Scholarship	
Sponsor: The University of British Columbia (Vancouver)	
University of Manitoba Entrance Scholarship	\$5 000
Senior Gold Medallist - \$5000 Entrance Scholarship	
Sponsor: University of Manitoba	
University of Ottawa Entrance Scholarship	\$4 000
Senior Gold Medallist - \$4,000 Entrance Scholarship	
Sponsor: University of Ottawa	
Western University Scholarship	\$4 000
Gold Medallist - \$4000 Entrance Scholarship	
Sponsor: Western University	
Total	\$31 250



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