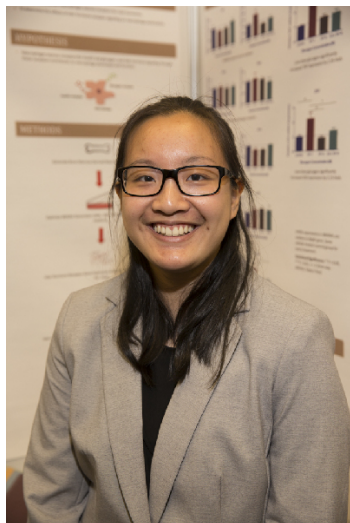


# CWSF 2016 - Montreal, Quebec



## Janice Pang

### Macrophage Phenotype and Function: Effects of Islet Hormone Signaling

**Challenge:** Health

**Category:** Senior

**Region:** Greater Vancouver

**City:** Coquitlam, BC

**School:** Pinetree Secondary School

**Abstract:** Bone-marrow derived macrophages were treated with insulin or glucagon to determine the effects of islet hormone receptor signaling on macrophage phenotype and function. This study demonstrates potential novel effects of glucagon on macrophage polarization. A better understanding of islet hormone signaling can potentially lead to future studies investigating the effectiveness of targeting islet hormone signaling in type 2 diabetes.

#### Biography

Janice Pang is a grade 12 honour roll student at Pinetree Secondary School. Since the age of 13, she has been extremely interested in immunology. For the past four years, her research has focused on type 2 diabetes. Along the way, she competed at the 2012 and 2013 Canada-Wide Science Fair, receiving a gold medal and the Health Challenge Award for both years. Notably, she was honoured to represent Canada at the 2015 Intel International Science and Engineering Fair. Besides pursuing her passion for science, she represented the Coquitlam Curling Club at the 2014 BC Winter Games, and the 2014 and 2015 Tim Hortons BC Junior Provincial Curling Championships. Furthermore, she is passionate about nature, especially sustainability. Since 2015, she has served as one of the Regional Directors for Sustainable Youth Canada. In her spare time, she enjoys reading, listening to music, as well as going on hiking trips. Through her research, she hopes to not only make a difference in the lives of millions of people around the world but she also wants to inspire youth to pursue science at an early age.

#### 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
<b>Total</b>	<b>\$8 500</b>