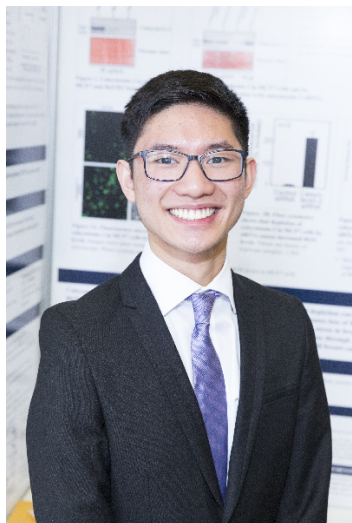


# CWSF 2018 - Ottawa, Ontario



## Nikko-Johan Lee

### A Novel Strategy for Preferential Killing of Breast Cancer Cells

**Challenge:** Discovery

**Category:** Senior

**Region:** Calgary Youth

**City:** Calgary, AB

**School:** St. Mary's High School

**Abstract:** Treating breast cancer is still a challenge to this day. My goal is to determine whether the protein, calsyntenin-3, could be targeted to kill breast cancer cells. By depleting calsyntenin-3 from cancer cells, I found that I could increase stress levels and induce death of these cells. Therefore, elimination of calsyntenin-3 could potentially be used as a new strategy to treat breast cancer.

#### Biography

My name is Nikko-Johan Lee. I am a grade 12 student attending St. Mary's High School in Calgary, Alberta. I am a consistent honour student and am working towards a diploma in piano performance. I enjoy ice hockey and have been playing as a goalie since age 8. As a certified ice-hockey referee, I take pride in maintaining safety and order among players and coaches. Off ice, I offer free tutoring in math and physics to friends. As a volunteer for an annual Calgary Health Fair through a Foundation that awarded me a Scholarship for Academic Excellence, I engage in activities that promote health care. Together with my family's support for breast cancer research, I developed my passion for health research and desire to pursue a degree in medicine. I became aware of the need to develop effective treatments for cancer. Therefore, I grabbed the opportunity to perform breast cancer research at the University of Calgary. I collected some exciting data and wish to continue working on my project and hopefully, publish a paper. For students considering to do a project, I suggest that they pursue something that they find exciting. Fascination can bring out extraordinary results.

#### Awards

#### Value

Excellence Award - Senior - Silver Medal Sponsor: Youth Science Canada	
Challenge Award - Discovery - Senior Sponsor: Youth Science Canada	
Carleton University Entrance Award Senior Silver Medallist - \$2,000 Entrance Award Sponsor: Carleton University	\$2 000
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>\$10 500</b>

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