

# CWSF 2018 - Ottawa, Ontario



## Oishi Hawlader

### Sensory Effects of Dichoptic Saccadic Adaptation

**Challenge:** Health

**Category:** Senior

**Region:** Eastern Newfoundland

**City:** St. John's, NL

**School:** Gonzaga H.S.

**Abstract:** The medical condition strabismus is the misalignment of the two eyes. Surgery is commonly used as treatment; however, this study analyzes a potential rehabilitation treatment for temporary realignment. The subjects completed a series of tasks while their eyes were monitored using an eye tracking device. The adaptation of their eye motor skills caused recalibration in both normally-sighted and strabismus individuals and impacted their perception.

#### Biography

Oishi Hawlader is a grade 12 student at Gonzaga Regional High School, St. John's. This coming fall she will be studying at Memorial University and wishes to pursue a career in Medicine. Oishi is an active volunteer in many organizations including Autism Society, Agri-Canada, Multicultural Women Organization, St. Clare's Hospital and Hindu Temple and is a member of the School Math League, Peace and Justice, Student Council and Musical Showcase. She choreographs, dances and plays the violin. She was a leading organizer of three cultural programs for more than 200 audience members. In summer 2017, she was awarded the RISE scholarship (\$15,000) to conduct research at the Research Science Institute (RSI) at MIT for six weeks with 80 other top high school students from different countries. The research for this science fair project was conducted in the Translational Vision Laboratory at Northeastern University on the non-invasive correction of strabismus. She continued working on this project and published her research at the NECEC-2017 conference and received the Women in Engineering Best Paper Award. For future participants, it is most important to perceive science fair as a new learning opportunity and to face challenges as a chance to prove your ingenuity.

#### Awards

#### Value

Excellence Award - Senior - Silver Medal 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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