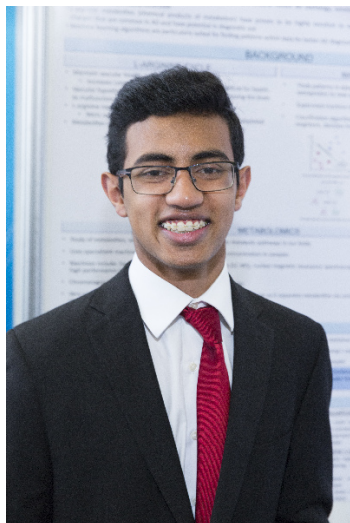


# CWSF 2018 - Ottawa, Ontario



## Aaron Varughese Abraham

### Predicting Alzheimer's via L-arginine Metabolites and Ensemble Machine Learnin

**Challenge:** Innovation

**Category:** Senior

**Region:** Calgary Youth

**City:** Calgary, AB

**School:** Webber Academy

**Abstract:** Current methods of diagnosis for Alzheimer's disease are often expensive and inaccurate. A novel blood-based diagnostic method was developed using the L-arginine metabolite cycle. This was investigated as a potential source of biomarkers for Alzheimer's disease using statistical analysis and machine learning algorithms. This diagnostic tool could be utilized in the medical field to diagnose Alzheimer's disease in an expedient and effective fashion.

#### Biography

Hello! My name is Aaron Abraham, a grade eleven student at Webber Academy, Calgary. I am an avid science fan, participating in science fair since Grade 5. Through the exploration of this topic, I have come upon my main interest in the intersection of health science and machine learning and have applied this knowledge in other areas like the SAS Big Data Challenge. My other passion is geography in which I competed in the Canadian Geographic Challenge placing in the top 5 geography students in Canada for 3 consecutive years. I also love to debate and have competed at provincial competitions. With a variety of interests, I believe CWSF will be an amazing forum for discussion and discovery as I meet like-minded individuals who have the potential to change the future.

#### Awards

#### Value

Awards	Value
Statistical Society of Canada Award - Senior Sponsor: Statistical Society of Canada	\$1 000
Youth Can Innovate Awards - Senior Sponsor: The Gwyn Morgan and Patricia Trotter Foundation	\$1 000
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>\$12 500</b>