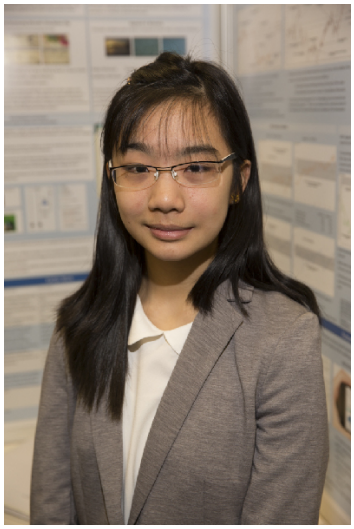
CWSF 2016 - Montreal, Quebec



Kayley Ting

Analysis of Electrodermal Activity to Quantify Stress Levels in Autism

Challenge: Health
Category: Intermediate
Region: York
City: Richmond Hill, ON
School: Academy for Gifted Children - P.A.C.E.

Abstract: My objective is to establish a method by which skin resistance readings can serve as early warning signs of a sensory meltdown in autism. Through monitoring electrodermal activity, I hope to quantify the severity and degrees of stress indicative of sensory overload. These findings can be applied to the development of a wearable device to assist individuals with autism.

Biography

My name is Kayley Ting and I am a student at The Academy for Gifted Children- P.A.C.E. I have a passion for all areas of science and in particular, learning about disabilities and the ways in which we can overcome them. Throughout my high school career, I have had the opportunity to engage in my varying fields of interest including medicine, math and statistical analysis, and programming. I think the best part about applying science is that it gives us the ability to combine discoveries from different fields. Science experiments empower us to find a need in our world and be a part of its solution. In the development of my project, I studied autism and neurodevelopment disorders, I learned about circuits, and studied the way the sympathetic nervous system works. With further research, I hope to apply my findings towards the creation of a wearable device that could assist individuals with autism.

Awards	Value
Challenge Award - Health - Intermediate Sponsor: AstraZeneca Canada	
Excellence Award - Intermediate - Gold Medal Sponsor: Youth Science Canada	$250
Western University Scholarship Gold Medallist - $4000 Entrance Scholarship Sponsor: Western University	$4 000
McGill University Entrance Scholarship An Entrance Scholarship of $2,500 is offered to each recipient of a platinum award. Sponsor: McGill University	$2 500
Platinum Award - Best Intermediate Project Sponsor: Youth Science Canada	$1 000
Best Project Award Sponsor: Youth Science Canada	$2 500
Total	$10 250