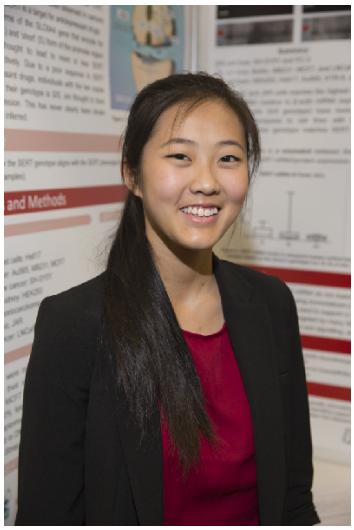
CWSF 2016 - Montreal, Quebec



Amy Wang

SERT Genotype and Expression Do Not Align in Human Cancers or Cortical Extracts

Challenge: Health
Category: Senior
Region: Saskatoon
City: Saskatoon, SK
School: Walter Murray Collegiate

Abstract: Changes in serotonin or serotonin transporter (SERT) levels have been observed in cancer and depression. The literature suggests a correlation between an insertion/deletion in the SERT promoter and levels of SERT protein expression. We used human cell lines and brain samples to determine whether the SERT genotype aligns with mRNA/protein expression. We demonstrate that SERT promoter genotype does not reflect the phenotype.

Biography

I initially became interested in studying psychiatric disorders after being placed in a ten week work experience in a laboratory at the university. From there, my mentor and I discussed ideas for a potential project, and we decided to focus on the genotype and expression of the serotonin transporter. In terms of further investigation, determining real world applications from my research is the ultimate goal. Further research could yield better treatment options in the future for patients with depression, cancer, and other disorders related to the interruption of the serotonin transport and signalling. Students who are interested in pursuing a project should do so with an open mind. Science is as much rewarding as it is challenging. Being tenacious and flexible in the face of failure is essential when taking on a project. Above all, it's a chance for one to study something they are passionate about and see its implications. Outside of science, I take part in many activities such as volleyball, piano, choir, and drama. In the future, I am hoping to become a professor.