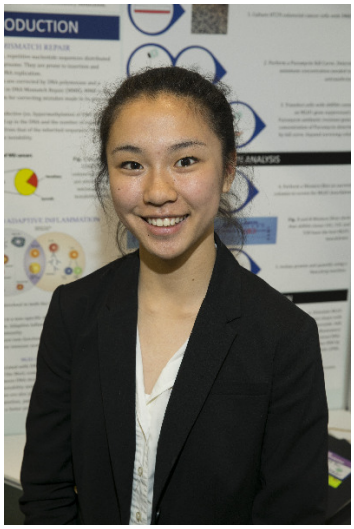
ESPC 2017 - Regina (Saskatchewan)



Katie Du

The Effect of DNA Repair Pathway Defects on Anti-Inflammatory Drug Response

Défi: Santé
Catégorie: Sénior
Région: Edmonton
Ville: Edmonton, AB
École: Old Scona School

Sommaire: With our current understanding of DNA mismatch repair and its relationship with colorectal cancer, we know a correlation exists between MLH1 deficiency and chronic inflammation. However, we do not know where the source of that inflammation is or its role in prognosis. The results of my experiment therefore show that biomarking MLH1 in diagnostic tests will revolutionize the way we treat colorectal cancer patients.

Biographie

Growing up, I was lucky enough to have parents who encouraged me to explore extracurricular opportunities. At the age of nine, I started to fence and by the time I would graduate high school, I would have travelled around the world with Team Canada to countries such as United States, Guatemala, France, and Germany. Although I have always been exposed to the scientific community through various leadership and volunteer work, I only became completely invested when I started working alongside Dr. Kristi Baker at the University of Alberta; studying the effects of DNA repair pathway defects on anti-inflammatory drug response in colorectal cancer cells. With her help, I was able to identify a new diagnostic test based on genetic variation between individuals to improve prognosis rates for all colorectal cancer patients. In the future, I would like to continue investigating the role of the MLH1 gene in colorectal cancer. If i were to give students one piece of advice about starting a project it would to approach science with an open heart and mind. There is no guarantee that any experiment will produce results, however if no attempt is made, then there is a guarantee no results will be produced.

Prix	Valeur
Prix d'excellence - Sénior - Médaille d'argent Commanditaire: Sciences jeunesse Canada	
Bourses d'admission de la Faculté des sciences de l'Université Dalhousie Médaillé d'argent, sénior - Bourse d'admission de 2 500 $ Commanditaire: Université Dalhousie, Faculté des sciences	2 500,00 $
Prix d'admission en sciences de UBC (Vancouver) Médaillé d'argent, sénior - Bourse d'admission de 2 000 $ Commanditaire: The University of British Columbia (Vancouver)	2 000,00 $
Bourse d'admission de l'Université d'Ottawa Médaillé d'argent, sénior - Bourse d'admission de 2 000 $ Commanditaire: Université d'Ottawa	2 000,00 $
Bourse d'études de Western University Médaillé d'argent - Bourse d'admission de 2 000 $ Commanditaire: Université Western	2 000,00 $
Total	8 500,00 $