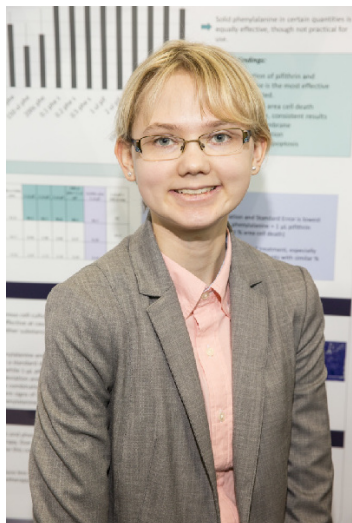


CWSF 2015 - Fredericton, New Brunswick



Kathryn Moeck

Pifithrin and Phenylalanine as a Novel Cancer Treatment

Challenge: Health

Category: Senior

Region: Peterborough

City: Cobourg, ON

School: Cobourg District C.I. West

Abstract: This project tested the effects of pifithrin and phenylalanine on kidney cancer cells. Pifithrin targets p53 and HSP70, while phenylalanine can cause damage to sensitive cells. The combination caused high amounts of cell death and cellular membrane disintegration. This treatment holds future promise as a novel targeted cancer therapy with reduced side effects, and could be a step closer to a cure for kidney cancer.

Biography

I am a 17 year old, grade 12 student at CDCI West. My interests include digital art and writing, yet my passion is in biochemical and medical sciences. I would describe myself as a dedicated student, and have won multiple awards in my high school years. My mother, a cancer survivor, inspired me to develop a novel cancer treatment after learning how many types of cancer do not yet have definitive treatments. I chose to research the effect of pifithrin and phenylalanine on cancer cells after my CWSF project in 2014, where I studied the impact on aspartame (which contains phenylalanine) on cancer. I plan to study biochemistry in university, and have aspirations to go to medical school and study to become an oncologist. I plan to continue my research about pifithrin and phenylalanine in university and hope to make a significant contribution to the fight against cancer. The best advice I can give to students thinking about doing a project is to go for it! Study what inspires you, and you will find out what a rewarding experience science fairs can be.

Awards

Value

Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	
University of Ottawa Entrance Scholarship Senior Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Ottawa	\$1 000
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
Total	\$2 000