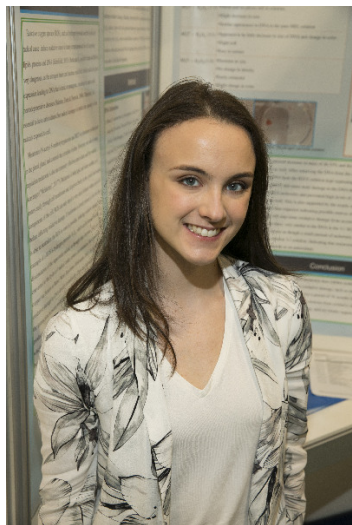


CWSF 2017 - Regina, Saskatchewan



Clara Phillips

Melatonin and the Inhibition of Oxidative Damage to DNA

Challenge: Health

Category: Senior

Region: Eastern Newfoundland

City: St. John's, NL

School: Holy Heart High School

Abstract: This experiment indicated that melatonin inhibits hydrogen peroxide induced oxidative damage to DNA. If not prevented, free radicals such as hydrogen peroxide can gravely damage DNA, leading to cancers and neurodegenerative diseases. Studying the effect of many different treatments of both substances on DNA samples, many conclusions may have been drawn about the effectiveness of melatonin as an antioxidant and its prevention of disease.

Biography

I am Clara Phillips, a grade 11 student at Holy Heart of Mary High School in St. John's, Newfoundland, currently enrolled in the full International Baccalaureate Program. I was inspired to do this project when I discovered that melatonin was a powerful antioxidant that can prevent oxidative damage to DNA. I was very intrigued, so I designed my project to explore this topic. To improve my investigation, I am seeking a mentor to help me improve my procedure with a more accurate way to measure DNA damage and have access to a laboratory with more resources. To other students who are thinking about doing project I would tell them to look for inspiration in their daily lives because project ideas can arise from many unexpected places. It is also important to know that as a young scientist, you can make a difference, do not give up because hard work does pay off. I am actively involved in school activities, such as choir and clubs. I am an avid runner, dancer and volunteer at a local long term care home. In the future I plan to attend university and want to pursue a career possibly in science or business.

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