Julia Boyd, Ilar Haydarian
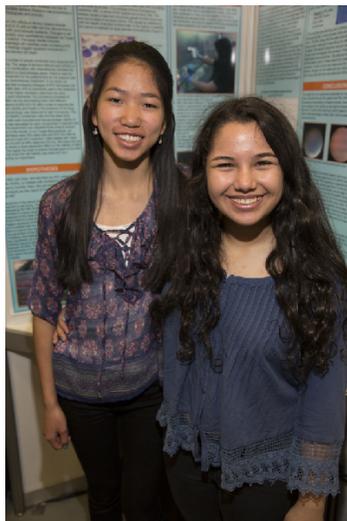
What Amount of Arsenic Trioxide Helps Stop APL Cell Invasion?

Challenge: Health
Category: Intermediate
Region: Toronto
City: Toronto, ON
School: Northern S.S.

Abstract: Our experiment investigated the effects of varying arsenic trioxide (ATO) doses on the percentage of viability of an Acute Promyelocytic Leukemia cell line using trypan blue exclusion. As the dosage of ATO increased, the cell viability decreased. The LD50 value was found to be 2.5 ?M. Molecules that promote apoptosis could be used to treat APL.

Biographies

Julia - My name is Julia Boyd and I am in grade 10. I go to high school in Toronto and I love it there. I have had so many great opportunities such as meeting new friends, playing on sports teams and having the chance to participate in the Toronto Science Fair. This year my partner and I did our science fair project on the effects of arsenic trioxide on Acute promyelocytic leukemia cells. We were both very interested in the topic of health sciences and were fortunate enough to have connections to a lab at a University. Testing the effects of a drug on cancerous cells intrigued us. In the future, we will investigate the effects of arsenic trioxide on ...

Ilar - My name is Ilar Haydarian and I attend Northern Secondary School. The inspiration for my project came from the cancer we decided to focus on, Acute Promyelocitic Leukemia. This cancer is very close to my heart, as my maternal grandfather died after a long battle with the disease. Through pure curiosity did I venture to researching the cancer itself. This ultimately lead to the research of the numerous treatment methods used to combat this specific type of cancer. Upon finding that APL had shifted from being one of the most common cancers to one of the most curable, I was intrigued. It has always been my goal to work in medicine and specifical...