



## CWSF 2010 - Peterborough, Ontario



## **Jessie MacAlpine**

## Effect of CO2 on chronic cold tolerance and fertility in Drosophila melanogaster

Division: Life Sciences
Category: Intermediate
Region: London District
City: Woodstock, ON
School: Huron Park S.S.

**Abstract:** This experiment looked at the effects of CO2 anaesthetic on chronic cold

tolerance in Drosophila melanogaster. Both hypotheses were rejected as there was no mortality or reduced fertility in flies exposed to CO2. CO2 did cause chill coma recovery time to be slower and cold caused reduced fertility in flies. Future experiments involving D. melanogaster will need to

use another anaesthetic, or risk compromised results.

## Biography

Jessie MacAlpine is a grade nine student who lives in Woodstock, Ontario. She is a very active student and enjoys swimming, cross-country, basketball, volleyball, track-and-field, and step dancing. She is part of many clubs, including PRO(People Reaching Out). Jessie loves music and can play the flute, piano and fiddle. Jessie has always had a keen interest in the environment and she realizes that the environment is a very delicate thing which needs to be taken care of for future generations. In the future she aspires to be an environmental scientist focusing on oceanography.

Awards	Value
The University of Western Ontario Scholarship	\$4 000
Gold Medallist - \$4000 Entrance Scholarship	
Sponsor: University of Western Ontario	
Gold Medal - Life Sciences - Intermediate	\$1 500
Sponsor: Pfizer Canada	
Total	\$5 500



