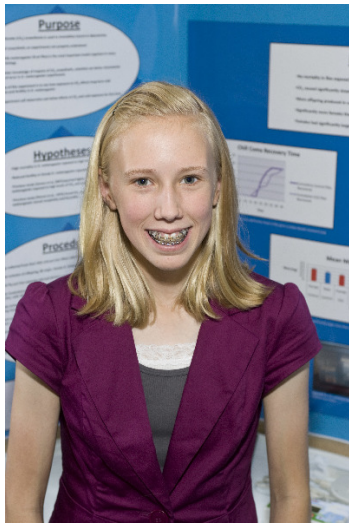


CWSF 2010 - Peterborough, Ontario



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