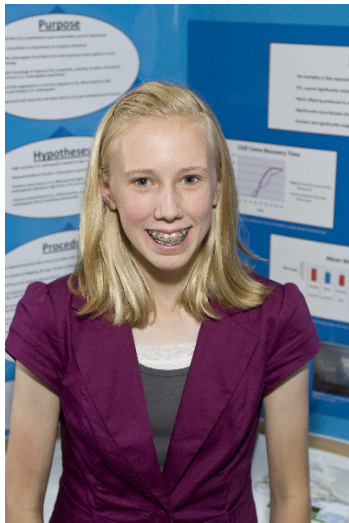


# CWSF 2010 - Peterborough, Ontario



## Jessie MacAlpine

### Effect of CO<sub>2</sub> 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 CO<sub>2</sub> anaesthetic on chronic cold tolerance in *Drosophila melanogaster*. Both hypotheses were rejected as there was no mortality or reduced fertility in flies exposed to CO<sub>2</sub>. CO<sub>2</sub> 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