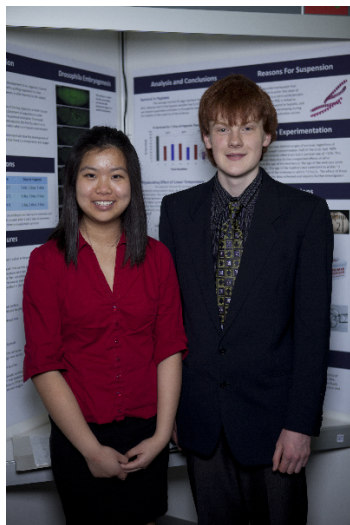


CWSF 2013 - Lethbridge, Alberta



Max Reed, Kelly Dong

The Effects of Hypoxia on Embryonic Development

Challenge: Discovery

Category: Senior

Region: Waterloo-Wellington

City: Guelph, ON

School: Centennial Collegiate & Vocational Institute

Abstract: Our work investigated the use of hypoxia, or low oxygen, as an alternative to hypothermia for storing organs and tissues. To determine whether or not it was possible to use hypoxia in this way, the embryos of *Drosophila melanogaster*, or the fruit fly, were incubated in low-oxygen conditions. We found that this could stop the embryos from developing while maintaining their viability.

Biographies

Max - My name is Max Reed, and I am from Centennial C.V.I. in Guelph, Ontario. In school I am especially fond of the natural sciences, but I also have interest in languages, social sciences, and the dramatic arts. My science fair partner Kelly Dong and I spent time researching different potential topics for our project, before eventually deciding on investigating the suspended animation that could be induced in fruit fly embryos when they are put in a low-oxygen environment. We decided on this after consulting with our science teachers at school, and with Professor Bruce Reed of the University of Waterloo. Next year we plan to look further into thi...

Kelly - My name is Kelly Dong and I'm from Centennial C.V.I in Guelph, Ontario. I have always been involved in the science area, writing contests such as the Michael Smith contest, Waterloo math and programming contests, and participating in Science Olympics at Western, Guelph, and McMaster. I started science fair with the intent in delving into lab related work. I definitely want to continue experimenting with our project, extending it to looking at the effects of hypoxia on genes. I would tell all other students that if you are going to do a project, go for it! It has been one of the greatest experiences of my life. It may seem like a lot of work, ...

Awards

Value

Excellence Award - Senior - Silver Medal Sponsor: Youth Science Canada	\$300
Dalhousie University Faculty of Science Entrance Scholarship Senior Silver Medallist - \$2500 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	\$2 500
UBC Science (Vancouver) Entrance Award Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: The University of British Columbia (Vancouver)	\$2 000
University of Ottawa Entrance Scholarship Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Ottawa	\$2 000
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
Total	\$8 800

Youth Science Canada
PO Box 297
Pickering ON L1V 2R4
www.youthscience.ca / info@youthscience.ca
416-341-0040