

## CWSF 2011 - Toronto, Ontario



### Malak Elbatarny

#### Making Connections: introducing the artificial nerve

**Challenge:** Health

**Category:** Senior

**Region:** Frontenac, Lennox & Addington

**City:** Kingston, ON

**School:** Kingston Collegiate Vocational Institute - KCVI

**Abstract:** The purpose of this project was to design, build and test an artificial nerve composed primarily of optical fibres. This device acts as a replacement axon re-connecting damaged neurons. The device was tested successfully both ex vivo and in vivo (on a locust).

#### Biography

My name is Malak Elbatarny. I am currently 15 and a Grade 11 International Baccalaureate student at Kingston Collegiate and Vocational Institute in Kingston, Ontario. I was originally born in Egypt and then moved to Kuwait for two years before living in Southampton, England for another five years and finally settling in Canada. My travels have certainly provided me with invaluable experience and insight. I speak Arabic, some French and even some Latin in addition to English. I enjoy participating in many extracurricular activities such as DECA (a business club), volunteering at a research lab, and participating in youth community initiative groups. I also participated in a variety of sports clubs in and out of school including karate, basketball, swimming, rowing, and tennis. I anticipate going into medicine post-secondary possibly in the field of surgery.

#### Awards

#### Value

CSSE Engineering Innovation Award - Senior Sponsor: Canadian Society for Senior Engineers	\$1 000
Excellence Award - Senior - Silver Medal Sponsor: Youth Science Canada	\$700
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
The University of Western Ontario Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Western Ontario	\$2 000
University of Ottawa Entrance Scholarship Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Ottawa	\$2 000
<b>Total</b>	<b>\$10 200</b>