

# CWSF 2008 - Ottawa, Ontario



## Matt Kirby

### Effect of Glucocorticoids on Nicotine Metabolism

**Division:** Life Sciences / None  
**Category:** Junior  
**Region:** Waterloo-Wellington  
**City:** Guelph, ON  
**School:** King George P.S.  
**Abstract:** A glucocorticoid hormone such as dexamethasone (a man made drug) and cortisol (a natural hormone) released during stress increases the activity of an enzyme found in mouse hepatocytes that metabolizes nicotine. Low nicotine levels in the blood increases the urge to smoke. These enzymes are CYP2A5 in mice and CYP2A6 in humans.

#### Biography

My name is Matt Kirby. I was born in Montreal on March 18, 1994. I am in grade 8 at King George Public School in Guelph. I am an honour roll with an 89% average. I enjoy swimming and volleyball. I play on a competitive 14U volleyball team (Guelph Hornets). I have all bronze qualifications of lifeguard, in the near future I plan to be a qualified Red-Cross lifeguard or instructor. I am also interested in music, I play the flute at the Tritone Music Center. I am also interested in biochemistry. I received a gold medal, best of life science, best written report, OAML award, and award of merit at my regional science fair (WWSEF). For my future post secondary plans, I plan to enter a university and study biomedical research. Throughout the hard work in the lab during the past year, I have come to a conclusion that it is my goal to help society's need and awareness in medical research.

#### Awards

#### Value

The University of Western Ontario Scholarship Silver Medallist - \$1500 Entrance Scholarship Sponsor: University of Western Ontario	\$1 500
Silver Medal - Health Sciences - Junior Sponsor: Canadian Institutes of Health Research	\$700
Total	\$2 200