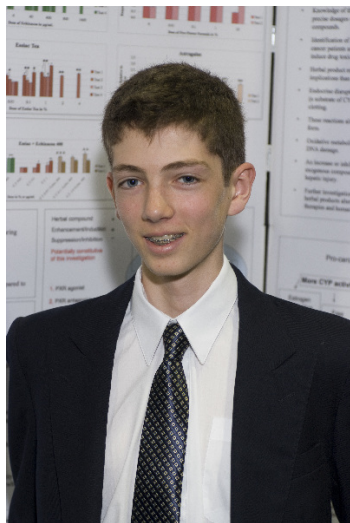


# CWSF 2009 - Winnipeg, Manitoba



## Brian Krug

### Herbal Products May Alter Drug Metabolism

**Division:** Life Sciences / None

**Category:** Intermediate

**Region:** Waterloo-Wellington

**City:** Guelph, ON

**School:** John F. Ross C.V.I.

**Abstract:** The enzyme CYP3A4 is involved in the metabolism and therapeutic outcome of 50% of pharmaceutical drugs. This investigation used a luciferase transcription assay to determine the effects of herbal products on hepatic CYP3A4 gene transcription. Several products altered gene activity, suggesting they could interfere with the success of drug therapies when consumed simultaneously.

#### Biography

I am a grade ten student at John F. Ross C.V.I. in Guelph, Ontario. In the past three years I have had opportunities working with mentors performing research in labs across the University of Guelph. Despite being fascinated with all biological sciences, my research has generally focused on toxicology and cancer research. My interests include competitive skiing, running, biking, hiking, playing the clarinet and reading non-fiction. I plan to study biology or medicine after high school.

#### Awards

#### Value

The University of Western Ontario Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Western Ontario	\$1 000
Bronze Medal - Health Sciences - Intermediate Sponsor: Canadian Institutes of Health Research	\$300
<b>Total</b>	<b>\$1 300</b>