

## CWSF 2006 - Saguenay, Québec



### Jeffery McLennan, Arwin Kalra

#### Site Directed Mutagenesis of Conserved Tyrosines in ER Alpha and ER Beta

**Division:** Biotechnology

**Category:** Senior

**Region:** Manitoba Schools Science Symposium

**City:** Winnipeg, MB

**School:** Shaftesbury High School

**Abstract:** This project was undertaken to determine the effects of tyrosine phosphorylation in Estrogen Receptor function. We mutated several tyrosines in ER alpha and ER beta in phenylalanines and using PCR, Luciferase and EMSA assays as well as Invitro-Translation and Western Blotting to determine the effect of these mutations Estrogen Receptor function. We determined that tyrosine phosphorylation did in fact play a role in ER function.