

## CWSF 2017 - Regina, Saskatchewan



### Malika Sharma

#### Optimizing DNA Barcoding for Investigating Food Fraud

**Challenge:** Discovery

**Category:** Intermediate

**Region:** Cariboo Mainline

**City:** Kamloops, BC

**School:** St Ann's Academy

**Abstract:** The purpose of this project was to optimize a protocol for PCR amplification of fish DNA mini- barcode with the ultimate aim of detecting food fraud. DNA barcoding is a method that uses an organism's short genetic sequence to identify it to a particular species. I was able to optimize DNA amplification protocol with 100% success indicating optimum primer selection and PCR methodology.

#### Biography

Hi! My name is Malika Sharma and I am in Grade 9 at St. Ann's Academy, Kamloops, BC. This is my sixth time participating in a regional science fair, and my second time in CWSF. This year at the Cariboo Mainline Regional Science Fair (CMRSF), I won a gold medal, the Society for Canadian Women In Sciences and Technology (SCWIST) award, and the Genome BC award. I also have tons of hobbies. I enjoy playing the guitar, skating, singing, dancing, reading, swimming, going hiking, and checking things off my bucket list! I plan to study medicine in university. I was inspired to do this project after listening on the radio about the growing problem of food fraud globally. I got intrigued to know how can this global issue can be resolved. I learned that the biggest challenge is to find out if the food is authentic and DNA barcoding may be a way to solve it. I love science because there are endless possibilities and would like to encourage other students to participate in fairs because it is a great learning experience!