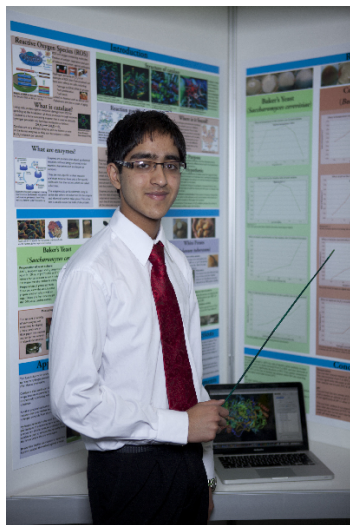


## CWSF 2013 - Lethbridge, Alberta



### Saad M.A. Alam

#### Catalase and detoxification

**Challenge:** Health

**Category:** Intermediate

**Region:** Peterborough

**City:** Peterborough, ON

**School:** Holy Cross S.S.

**Abstract:** A catalyst is anything that accelerates a reaction without being consumed within it. An enzyme is a catalyst that accelerates a chemical reaction. A catalase is a type of enzyme within our bodies that separates a harmful substance called Hydrogen Peroxide ( $H_2O_2$ ) into  $H_2O$  and Oxygen, both essential for our survival.  $H_2O_2$  is created by the reaction of an Reactive Oxygen Specie within our body.

#### Biography

My name is Saad Alam. I'm 15 and I live in Peterborough which is a city full of beautiful people and nature. I have three sisters. One of them is Samiah, who was my main driving force behind this project. She has recently completed her masters in Bio-Chemistry from Trent University. I'm interested in computer science, music, sport and fantasy literature. My interest in my sisters work in biochemistry led me to stumble upon a study on possibly increasing human lifespan using enzymes. Following this, I began researching further about enzymes and came across a certain enzyme called Catalase. Thereafter when an opportunity to present my learnings came up, I chose to do this project for the Science Fair. For the future, my hopes for this project is to actually reach a goal in regards to finding a way of increasing human life span. My advice to other students who are just starting to take interest in the science fair is to choose a project that is developmental and resourceful to the science community. Likewise, it should be a project that the student themselves enjoy materializing in order to ensure greatest potential despite its external appeal.

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