

## CWSF 2017 - Regina, Saskatchewan



### Krish Joshi

#### Developing a Dermal Colorimetric Test Patch to Identify Iron Loss in Sweat

**Challenge:** Innovation

**Category:** Junior

**Region:** Bay Area

**City:** Waterdown, ON

**School:** St. Thomas Waterdown

**Abstract:** The aim of this project is to create a dermal colorimetric test patch to identify iron loss in sweat using diisopropylbenzene dihydroperoxide and 3'3'5'5' tetramethylbenzidine. This patch will not only provide in-situ visual colorimetric results but will also use sweat as a biomarker for non-invasive preliminary iron loss through perspiration. The dermal patch has a simple design and is cost-effective and self-applicable.

#### Biography

My name is Krish Joshi, and I am a Grade 8 student from St. Thomas the Apostle CES in Waterdown, Ontario. I have been participating in science fairs since Grade 5. My scientific interests are in medicine, botany and nutritional sciences. Besides my passion for exploration in science, I also have a deep interest in other areas in STEM. For example, I have also been a member of the Robotics team since Grade 6 and have competed in provincial competitions. I am also a member of the New York Academy of Sciences, through which I collaborate internationally with other students and professionals in STEM on projects ranging from climate change to malnutrition in developing countries. At school, I am President of school Student Council. In my spare time, I enjoy listening to music, playing chess in a local club, and playing competitive table tennis. My advice for anyone interested in doing a science fair project is to not only choose a topic you're passionate about, but to challenge yourself, and even step outside of your comfort zone just a little.

#### Awards

#### Value

Excellence Award - Junior - Silver Medal Sponsor: Youth Science Canada	
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
Total	\$2 000

