

# CWSF 2013 - Lethbridge, Alberta



## Teal Manners, Sarika Sudhakar

### ChewGlu

**Challenge:** Innovation

**Category:** Intermediate

**Region:** Lambton County

**City:** Sarnia, ON

**School:** Mentor College

**Abstract:** Diabetes affects 246 million people worldwide and its incidence rate is projected to increase. Early diagnosis and management of pre-diabetics and diabetics is of paramount importance to our health care system. We developed a non-invasive glucose biosensor capable of discerning between normal, pre-diabetic and diabetic subjects that can be implemented for large-scale screening of populations at low cost, with minimal technical skill to administer.

### Biographies

**Teal** - Since I was young, science has been appealing as it offers a creative learning experience. After much independent involvement in science activities I started investigating practical applications which led to my current idea. Soccer, art, dance and music have also attracted my attention. My father's artistic influence enhanced my creative thinking in science and strategic thinking from soccer. Diabetes became a major health issue among my relatives as I was growing up and their suffering motivated me to investigate the screening tests currently used considering that there are also 246 000 000 people suffering in the world. The growing acces...

**Sarika** - Ever since sixth grade I have been interested in science due to the connections to real life, the environment and dietary choices. As many of my family members developed diabetes and the risk of blindness grew I was inspired to make a difference in the lives of people by developing a new screening process. My community outreach includes volunteering for the Canadian Cancer Society, health centres and various multicultural associations. My interests include basketball, volleyball, keyboarding and Bollywood dance. I am passionate about developing a new method for screening for diabetes which I will eventually like to patent so Canadians and the...

### Awards

### Value

Excellence Award - Intermediate - Silver Medal Sponsor: Youth Science Canada	\$300
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
<b>Total</b>	<b>\$2 300</b>