

## CWSF 2013 - Lethbridge, Alberta



### Ajantha Nadesalingam

#### The Active ingredient Turmeric: the Double-Edged Sword

**Challenge:** Health

**Category:** Junior

**Region:** Toronto

**City:** Toronto, ON

**School:** Deer Park Jr. & Sr. P.S.

**Abstract:** Clinical trials suggest that curcumin, turmeric's active ingredient, is a therapeutic candidate for treating many diseases. However, curcumin could negatively affect the positive gut microbiome and other beneficial microorganisms. I found that ethanol-extracts of turmeric suppress yeast growth, reduce probiotic bacterial growth, preserve milk, and kill pathogenic and non-pathogenic bacteria. It could be an antibiotic. However, too much of a good thing can be bad.

#### Biography

I am Ajantha Nadesalingam, and I'm studying in eighth grade at Deer Park Public School in Toronto. I enjoy writing and achieving high academic standards at school. I love various activities from writing to photography to athletics. Further, I am extensively involved in community activities, including motivational speaking, fundraising for Free the Children and leadership training with the Youth Leadership Program. Since a young age, I have been living in university environments in Canada (Guelph and Toronto), USA (Cincinnati, Ohio) and UK (Oxford), and breathing in science. These exposures have sparked my interest in the sciences. And since fourth grade, I have been participating in recreational science fairs. My project started with a recipe mistake which stopped the growth of yeast. This suggested that turmeric powder inhibits the growth of beneficial microorganisms. I then began conducting experiments to confirm my hypothesis. I plan to repeat my experiments with the purified active ingredient, and determine its antibiotic value and its effect on the gut microbiome. I aspire to become a scientist so that I can help people in the world through advances. Science fairs are an amazing learning experience for anyone to undertake, and your imagination is the limit.

#### Awards

#### Value

Excellence Award - Junior - Gold Medal Sponsor: Youth Science Canada	\$700
Western University Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: Western University	\$4 000
<b>Total</b>	<b>\$4 700</b>

