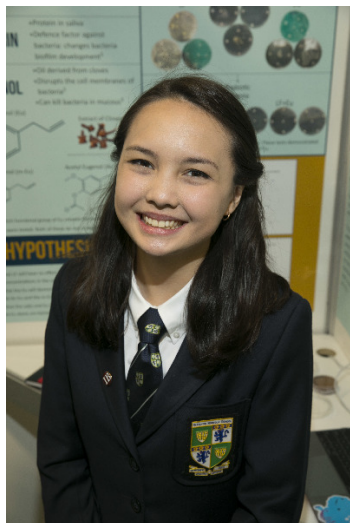


CWSF 2017 - Regina, Saskatchewan



Ella Chan

Oral Infections: Does lactoferrin inhibit the bactericidal action of eugenol?

Challenge: Health

Category: Senior

Region: Vancouver Island

City: Victoria, BC

School: Glenlyon Norfolk School

Abstract: I tested the bactericidal action of eugenol on oral bacteria with and without the presence of lactoferrin. Through doing this I was able to determine if lactoferrin (a protein present in saliva) inhibits the effect of eugenol. Functional group changes in eugenol were also tested to determine which substituents were responsible for the bactericidal action.

Biography

I am currently a Grade 11 student at Glenlyon Norfolk School in Victoria, BC. I have been running an educational science YouTube Channel called "Sci-Files" (youtube.com/scifiles) for four years now and produce monthly science videos. I have also produced a children's book set called "STEM Files" that contains five books that promote STEM Subjects and revolves around female STEM contributors. In the future I plan on pursuing pharmacology; this inspired my project as it was a way for me to explore a non-antibiotic treatment for a disease. I plan on continuing my project by testing more components of saliva alongside eugenol, as well as other similar compounds such as catechol. In my future career, I hope to study treatments for diseases such as nephrotic syndrome, a kidney disease which one of my brothers has. I also plan on continuing to promote STEM education and outreach through my videos. My advice for students thinking about Science Fair is to never doubt your ability to create an interesting project!

Awards

Value

Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	
University of Ottawa Entrance Scholarship Senior Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Ottawa	\$1 000
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
Total	\$2 000