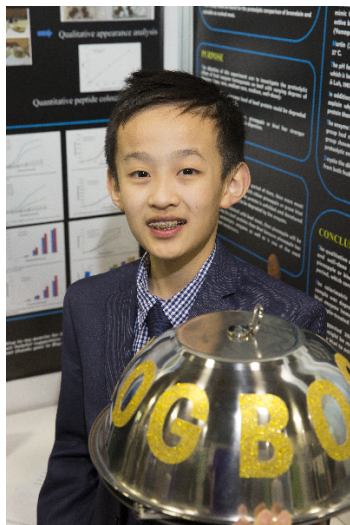


CWSF 2019 - Fredericton, New Brunswick



Ethan Chiang

Proteolytic Effect of Fruit Enzyme Homogenate on Different Doneness of Beef

Challenge: Health

Category: Junior

Region: Bay Area

City: Oakville, ON

School: St. Andrew E.S.

Abstract: Experiments were done to determine which beef doneness could be degraded the most for optimal digestion using pineapple and kiwi as proteolytic enzymes. Results were analyzed using qualitative observation and quantitative colorimetric peptide assay. Considering the nutritional benefits, preference of palatability, and energy-saving, medium doneness was found to be best. This result provides the public with the optimal steak doneness information for better protein digestion.

Biography

My name is Ethan Chiang and I am a Grade 8 student at St. Andrew in Oakville. I am very engaged in extracurricular activities and clubs, such as Model UN, Let's Talk Science, etc. I even founded the first-ever Debate Club at my school. Speaking of debate, I am passionate about public speaking and debating. I have been debating competitively since last year and have won several awards, most notably I qualified for Canadian Junior National Debating Championships this May. Also, I have been a finalist for Regional French Public Speaking for the past 4 years. I love steak a lot. I always see some customers ordering rare or medium rare steak at restaurants. The bright reddish color made me wonder if steak doneness had an impact on our nutritional and dietary health. In order to enhance my project, I plan to use pepsin to mimic in vitro digestion more realistically and employ more precise analysis, such as fluorescence peptide assay and gel electrophoresis to achieve more accurate results. Last but not least, I would love to advise others to take a closer look at the world around us and draw inspiration from something you are extremely eager to accomplish.

Awards

Value

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