

CWSF 2017 - Regina, Saskatchewan



Sadia Khan

Firm 'n' Cute

Challenge: Health

Category: Intermediate

Region: Waterloo-Wellington

City: Kitchener, ON

School: Cameron Heights C.I.

Abstract: Sucralose changes the composition of intestinal bacteria by unnaturally increasing the population of Firmicutes and elevating the risk of obesity. This in-vitro experiment tested whether antibacterial herbs could prevent the sucralose induced population increase in *Lactobacillus rhamnosus* GG ATCC 53103, a Firmicute and probiotic bacteria. Contrary to predictions, sucralose decreased population growth instead of increasing it, and the effectiveness of the herbs varied greatly.

Biography

Sadia Khan is a grade 10 Pre-IB student at Cameron Heights Collegiate Institute in Kitchener. Sadia's passion for science has led her to participate in Waterloo-Wellington Science and Engineering Fair since grade 7. This year's project was not only an extension of her past project, but also a more creative approach to find whether antibacterial herbs could control the growth of a Firmicute and probiotic bacteria. In the future, she plans to investigate whether probiotics have a role in preventing negative side-effects of certain antibiotics. Sadia enjoys participating in University of Waterloo Brain Bee competition, different Math contests and Perimeter Institute Lectures. She has been involved in school clubs and activities such as helping school office and library, making morning announcements, fundraise for charities as member of Cougar PAWS, assisting students with special needs, attending 'Safe, Caring and Inclusive Schools' conference as student representative, and volunteering in school events. Sadia volunteered with City of Kitchener neighbourhood camps for two summers through Building Youth Leadership Development program, Kitchener Public Library through Summer Teen Volunteering program, YMCA through Lego Computer Camp, and Our Place Family Resource Centre through...

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