

CWSF 2012 - Charlottetown, Prince Edward Island



Rachel McLay

The Effects of Vitamin D on Muscle Function

Challenge: Health

Category: Senior

Region: Bluewater

City: Stokes Bay, ON

School: Bruce Peninsula District S.S. & E.S.

Abstract: This project examined whether human skeletal muscle, deficient in vitamin D, would respond to supplementation. One hundred and sixteen planaria were used. It was found that moderate supplementation of vitamin D3 was most effective in improving the speed and strength of planaria. Results concluded that a vitamin D deficient athlete's skeletal muscle function and physical performance may be improved with vitamin D supplementation.

Biography

My name is Rachel McLay and I live in Stokes Bay. I have an older sister and a younger brother. I am 17 years old, in grade 11 and attend Bruce Peninsula District School in Lion's Head. I am on our school's secondary student council as Lieutenant Governor. I play volleyball and badminton. My favourite subjects are Kinesiology, English, French and Science. When I have spare time, I enjoy reading and painting. I also enjoy being active in a variety of sports like running, biking, and swimming. I relax by playing the piano and doing yoga. I want to attend university after Grade 12 and pursue a career in Health Sciences. My inspiration for this project came from the Kinesiology course I took last fall. I hope to keep my planaria and continue experimenting with vitamin D this summer and next fall. I would encourage anyone with a passion for a topic or an idea for an experiment to research, learn as much as you can, connect with others, tell others about it, ask questions and work hard so you can take advantage of all that a Science Fair can offer. This opportunity opens doors and makes dreams come true!

Awards

Value

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| Excellence Award - Senior - Bronze Medal Sponsor: Nuclear Waste Management Organization | \$300 |
| 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 | \$2 300 |