

CWSF 2015 - Fredericton, New Brunswick



Anika Gupta

The Effects of Pesticides and Neuroprotective Agents on Dopaminergic Neurons

Challenge: Health

Category: Junior

Region: Bay Area

City: Dundas, ON

School: Sir William Osler

Abstract: I have found that pesticides (Rotenone and Paraquat) cause damage to dopaminergic neurons in the nematode *C. elegans*. These results allowed me to screen for natural compounds with neuroprotective properties in the pesticide-induced Parkinson's disease nematode model. My work showed that two compounds, fenugreek and turmeric, delayed neurodegeneration. In the future I will test different active components of natural compounds for beneficial effects.

Biography

My name is Anika Gupta, a Grade 7 student at Sir William Osler Elementary Public School in Dundas, Ontario. I am an avid sports lover and enjoy being active by playing volleyball, basketball, tennis and running competitively for a club. As a captain of our volleyball team this year, we won third at our City-West tournament! My hobbies include figure skating, playing the violin/flute and watching 'I Love Lucy'. I am involved with many clubs in my school. As a part of the student leadership council, I had a privilege to organize the Great Big Crunch for the whole school. My favourite subjects include mathematics and science. I am fascinated by the complexities of the human brain. I got the inspiration to do my project from my grandpa; he was recently diagnosed with Parkinson's disease. One of my favourite quotes from Walt Disney, which I always keep in my mind, "We keep moving forward, opening new doors, and doing new things, because we're curious and curiosity keeps leading us down new paths."

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