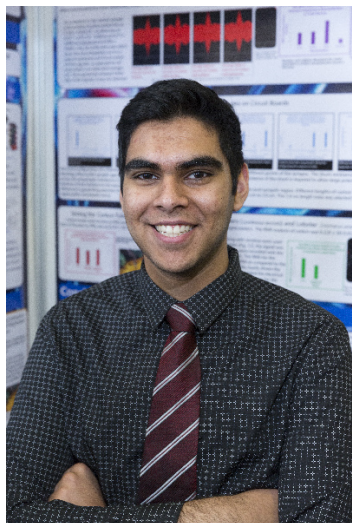


## CWSF 2018 - Ottawa, Ontario



### Mavi Jeet Deol

#### A Novel Approach to Restore Connectivity in Spinal Nerve Systems

**Challenge:** Health

**Category:** Senior

**Region:** Lambton County

**City:** Sarnia, ON

**School:** Northern C.I. & V.S.

**Abstract:** This project involves designing a neural device that restores connectivity in damaged spinal nerve systems. The device uses carbon acting as an electrical stimulant and nicotine/cafeine/glutamate acting as a chemical stimulant to keep the signals transmitting in their pathways. A variety of experiments have been conducted to study the nerve conduction in electrical circuit boards, and nerves in biological systems.

#### Biography

I am currently a Grade 11 student at N.C.I.V.S, Sarnia, Ontario. I always strive for excellence and that is what led me to participate in the regional science fairs for the last six years. Biology, Physics, and Chemistry are my best subjects in school. To enhance my learning, I was accepted in a prestigious online research co-op and am currently writing a research paper. I held an executive position in our Multicultural Awareness Club at school which embraces diversity and divergent thinking. I served as a delegate and defended issues about drones and cyber-security with Model United Nations. I was the defense lawyer of my school's Law Club for which our school finished first place at the city wide competition. As a Peer Mentor, I am involved in organizing school activities for new students. From the music perspective, I have played piano for 10 years, and mixed EDM for 6 years. As a competitive swimmer, I was part of my school swim team and qualified for regional. Aside from school, I work as a lifeguard at our local YMCA, and volunteer at the hospital. I plan on attending a university to study medical sciences, or life sciences.

#### Awards

#### Value

Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	
Carleton University Entrance Award Senior Bronze Medallist - \$1,000 Entrance Award Sponsor: Carleton University	\$1 000
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	\$3 000