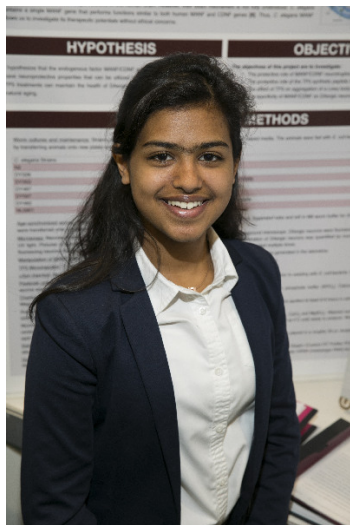


## CWSF 2017 - Regina, Saskatchewan



### Anika Gupta

#### A Novel Approach to Protect Dopamine Neurons Using a Peptide and Trophic Factor

**Challenge:** Health

**Category:** Intermediate

**Region:** Bay Area

**City:** Dundas, ON

**School:** Westdale S.S.

**Abstract:** The neuroprotective properties of two novel agents, MANF/CDNF neurotrophic factor, and TP5 synthetic peptide have been tested in a worm model of Parkinson's disease (PD). The effects of these two factors on dopaminergic neurons were examined by a combination of mutant analysis and transgenic studies. Both agents suppressed age-dependent as well as oxidative stress-induced neurodegeneration, demonstrating their potentials as effective drugs for PD treatments.

#### Biography

My name is Anika Gupta and I am a Grade 9 student. I love being active by participating in various recreational sports. I am an avid runner. My hobbies include cooking, baking, reading and playing music. I am fascinated by the complexities of the human brain and would like to do my small part in contributing to the scientific community. After seeing PD controlling my grandpa's body, I would hope that this research could one day be developed into a treatment to help him. My advice to keen science students would be to find something that they love and to never give up.

#### Awards

#### Value

Excellence Award - Intermediate - Silver Medal Sponsor: Youth Science Canada	
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
Total	\$2 000