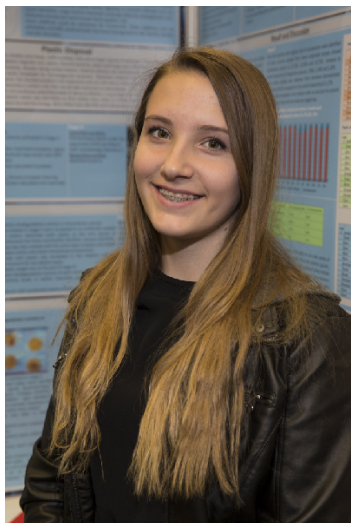


CWSF 2016 - Montreal, Quebec



Aiding Biodegradation by Limiting Carbon

Challenge: Environment

Category: Intermediate

Region:

City: ,

School:

Abstract: Plastic resistant to biodegrading poses a major environmental threat. With easily digestible biopolymers available in nature, few microorganisms developed weak abilities to disintegrate plastic. The study aims to accelerate bacterial biodegradation activity by limiting carbon source to plastic therefore forcing microorganisms to adapt and upregulate necessary metabolic pathways. Pseudomonas demonstrated biodegradation activity acceleration from 1.39% in carbon-saturated to 21.335% in carbon-restricted mediums in three months.

Awards	Value
The Society of Toxicology Award - Intermediate Sponsor: The Society of Toxicology	\$750
Excellence Award - Intermediate - Bronze Medal Sponsor: Youth Science Canada	
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
Total	\$1 750