

CWSF 2017 - Regina, Saskatchewan



Jacob Harvey

Medium Optimization for Cheap, Novel Bioplastic Production From P. Putida

Challenge: Environment

Category: Senior

Region: Winnipeg Schools

City: Winnipeg, MB

School: Grant Park High

Abstract: Polyhydroxyalkanoates (PHAs) are biodegradable, biocompatible, thermoplastic polyesters synthesized by a variety of microorganisms from renewable carbon sources. A method of producing PHAs that is theorized to be much cheaper and more productive than current methods is known as continuous culture fermentation. The objective of this project was to derive an ideal medium for PHA production from *Pseudomonas Putida* in an open continuous system.

Biography

My name is Jacob Harvey, and I'm a grade 11 student from Grant Park High School in Winnipeg, Manitoba. I have been mentored at the University of Manitoba for the past 3 years and have worked in their Biosystems Engineering Lab on projects concerning the development of biodegradable plastics produced via biosynthesis by a variety of different microorganisms. I hope to continue this research into grade 12 and overall the entire experience has been great for me. I would definitely recommend anyone with even the slightest interest in science to participate in local fairs and if possible, work under a mentorship program.

Awards

Value

Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	
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	\$2 000