

# CWSF 2018 - Ottawa, Ontario



## Jacob Harvey

### PHA Production from Degradation Products of Polyethylene Terephthalate

**Challenge:** Innovation

**Category:** Senior

**Region:** Winnipeg Schools

**City:** Winnipeg, MB

**School:** Grant Park High

**Abstract:** The abundance of plastic waste is one of the greatest environmental catastrophes the world is facing today. The objective of this project was to determine whether it is possible to, through the use of bacteria, convert plastic waste into a biodegradable, bio-compatible plastic. The discoveries made in this project propose a potential means for bio-remediation as well as for replacing conventional, petroleum-based plastics.

### Biography

My name is Jacob Harvey, and I'm a grade 12 student from Grant Park High School in Winnipeg, Manitoba. I have been mentored at the University of Manitoba for the past 4 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 university, as it has been an eye-opening experience for me to work in a real lab. 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 - Silver Medal Sponsor: Youth Science Canada	
Carleton University Entrance Award Senior Silver Medallist - \$2,000 Entrance Award Sponsor: Carleton University	\$2 000
Dalhousie University Faculty of Science Entrance Scholarship Senior Silver Medallist - \$2500 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	\$2 500
UBC Science (Vancouver) Entrance Award Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: The University of British Columbia (Vancouver)	\$2 000
University of Ottawa Entrance Scholarship Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Ottawa	\$2 000
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
<b>Total</b>	<b>\$10 500</b>

