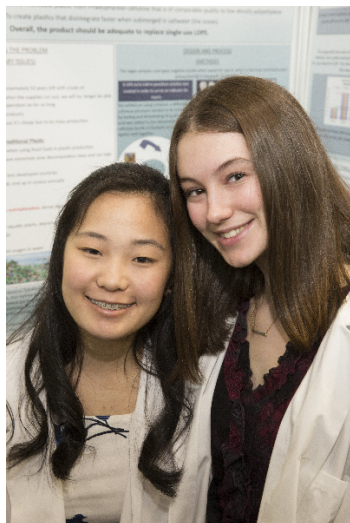


# CWSF 2019 - Fredericton, New Brunswick



## Adelka Felcarek-Hope, Sofia McVetty

### The Poly-Phaeophyceae Method

**Challenge:** Environment

**Category:** Intermediate

**Region:** Montreal

**City:** Westmount, QC, Montreal, QC

**School:** Académie Royal West

**Abstract:** With the objective of diminishing our global consumption of fossil fuels, we've developed a new method to create cellulose-based biodegradable plastic from Phaeophyceae algae. Our product, with comparable characteristics to low-density polyethylene, could ultimately replace it. This would primarily be in the production of single-use plastic products. Our design could reduce our consumption of fossil fuels, while also aiding the harmful abundance of algae.

#### Biographies

Adelka - Adelka Felcarek-Hope is a secondary four student at Royal West Academy. She is a competitive athlete, musician, and aspiring scientist. In 2016, she started developing the concept for "The Poly-Phaeophyceae Method". She then pursued the project at McGill University in a chemistry laboratory until the product was finalized. Along with Sofia McVetty, who focused on communication aspects of the project, she won the gold medal at Royal West Academy's science fair. At the Montreal Regional Science and Technology Fair, the duo won the gold medal for the senior division, as well as first place overall.

Sofia - Sofia McVetty is a secondary 4 student attending Royal West Academy in Montreal, Quebec. It was at Royal West Academy where Sofia's interest in science was first initiated and where it has continuously grown. In her free time, she enjoys playing the flute and is a member of her school's honor band. She is passionate about almost all domains of science but would like to pursue a career in medicine by first studying health sciences in CEGEP. Sofia and her science fair partner Adelka Felcarek-Hope first started coming up with the idea of creating a new type of biodegradable plastic during their secondary 2 geography class, where it was brought...

#### 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