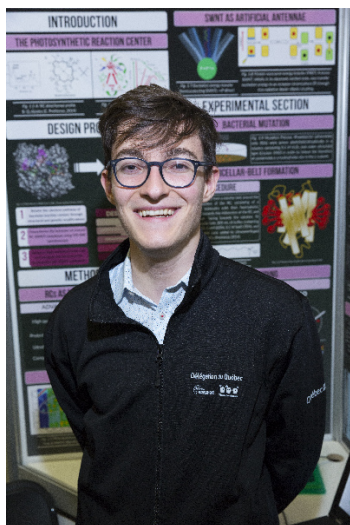


# CWSF 2018 - Ottawa, Ontario



## Wilfred Mason

### Self-Assembling Bio-Photocells

**Challenge:** Energy

**Category:** Senior

**Region:** Montreal

**City:** Laval, QC

**School:** Collège Marianopolis

**Abstract:** The purpose of this project is to design self-assembling solar cells which are inspired by the way plants and certain types of bacteria absorb sunlight. To create these solar panels, genetic and structural modifications were performed on a photosynthetic bacteria in order to obtain proteins wrapped in nanotubes which could be used to generate and store charge in biological solar cells when flashed with light.

### Biography

I am an aspiring entrepreneur intrigued by the workings of society and the pursuit of a economically and environmentally harmonious society. I am especially enthralled by the numerous wonders to be beheld in a scientifically advanced society. Regarding my project, I was particularly inspired by those in the developing world who to not have the economic ability to create sustainable energy, especially regarding mobility. Therefore my next goal would be to obtain a commercial patent for our hydrogen fuel in order to mass produce the product and eventually sell it commercially. I believe our product will one day be integrated seamlessly with am traditional gasoline engine. This is my first science fair experience and I am incredibly surprised at our generators instant success. In the end hard work and dedication prevail and success will follow suit. Sometimes I wonder what my future beholds in terms of mentor-ship. One day perhaps.

### Awards

### Value

Youth Can Innovate Awards - Senior Sponsor: The Gwyn Morgan and Patricia Trottier Foundation	\$1 000
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>\$11 500</b>