

## CWSF 2013 - Lethbridge, Alberta



## Biography

My name is Emma Hoover, I am from John McCrae Public School, Guelph Ontario. I am interested in Microbiology, and using plants as alternatives to medication, sources of electricity etc. The inspiration for my project came from the CBC TV show "Market Place" where they conducted an experiment into testing hotel cleanliness and found antibiotic resistant strains of bacteria in each hotel room tested. This gave me the idea to swab different public places in Guelph to see if antibiotic resistant bacteria was present on surfaces we commonly touch, and to see whether antibacterial compounds extracted from different plants would inhibit their growth. I have won the best of division award at the Regional Science Fair this year, and a gold medal in my division. My plans for further investigations in my project would be to create a semi synthetic drug containing natural and synthetic compounds to effectively inhibit the growth of antibiotic resistant strains of bacteria. Advice for any students interested in my project would be to have a mentor with experience to guide you through the experiments and to research this topic well for better comprehension.

## **Emma Hoover**

## **Plants That Bug Superbugs**

Challenge:	Health
Category:	Junior
Region:	Waterloo-Wellington
City:	Guelph, ON
School:	John McCrae Public School
Abstract:	Antibiotic resistance in bacteria has become one of the major public health concerns of the 21st century. In my project, I designed and developed an assay for using ethnobotanical extracts to determine their efficiency against antibiotic resistant strains of bacteria. The end goal would be to develop semi synthetic compounds from these natural products in order to develop new drugs to replace synthetic antibiotics.

Awards	Value
Excellence Award - Junior - Bronze Medal	\$100
Sponsor: Youth Science Canada	
Western University Scholarship	
Bronze Medallist - \$1000 Entrance Scholarship	
Sponsor: Western University	
Total	\$1 100



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