



## CWSF 2005 - Vancouver, British Columbia



## Kartik Madiraju

## **Bio-Electromagnetism**

**Division:** Biotechnology **Category:** Intermediate

Region: CDLS - Province du Québec

City: Brossard, QC

**School:** Centennial Regional High School

Abstract: Electricity is produced in a dynamo based on the principles of

electro-magnetism. If magnetic bacteria, which produce and use magnetite crystals as navigational tools, were made to spin using anti-flagellin antibody, they should produce a magnetic field. This project illustrates

magnetic bacteria's ability to produce electricity in a generator.

Awards	Value
AECL Award for Excellence in Science - Intermediate	\$750
Sponsor: Atomic Energy of Canada Ltd.	
Natural Resources Canada (NRCan) Office of Energy Efficiency Award	\$500
Intermediate	
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Renewable Energy Award - Intermediate	\$750
Sponsor: Ontario Power Generation	
Petro-Canada Peer Innovation Award - Intermediate - Québec	\$200
Sponsor: Petro-Canada	
The University of Western Ontario Scholarship	\$1 500
Silver Medallist - \$1500 Entrance Scholarship	
Sponsor: University of Western Ontario	
Silver Medal - Biotechnology & Pharmaceutical Sciences	\$700
Intermediate	
Sponsor: Rx&D Health Research Foundation	
Total	\$4 400



