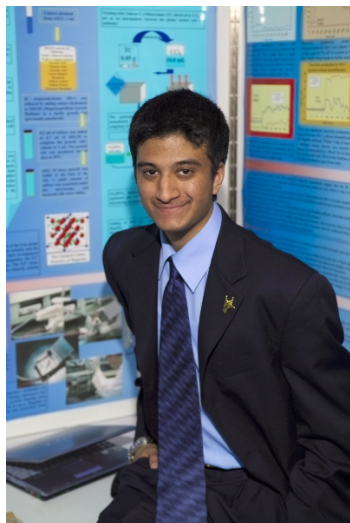


## CWSF 2005 - Vancouver, British Columbia



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