

# CWSF 2006 - Saguenay, Québec



## Kartik Madiraju

### Bio-Electromagnetism II

**Division:** Biotechnology

**Category:** Senior

**Region:** CDLS - Province du Québec

**City:** Brossard, QC

**School:** École secondaire régionale Centennial

**Abstract:** There is an increasing need for alternative energy sources. Last year, I demonstrated that magnetic bacteria, when placed in microbial generators, produce voltage. This year, I have shown these bacteria produce current and I optimized cell number and growth conditions to obtain high, sustainable electricity. A scale-up generator was designed, to test these bacteria as an energy source.

Awards	Value
Natural Resources Canada (NRCan) Office of Energy Efficiency Award Senior Sponsor: Natural Resources Canada (NRCan) Office of Energy Efficiency	\$500
The Canadian Society for the Weizmann Institute of Science Scholarships Arthur and Beatrice Minden Scholarship Sponsor: The Canadian Society for the Weizmann Institute of Science (Weizmann Canada)	\$8 000
The University of Western Ontario Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Western Ontario	\$1 000
Bronze Medal - Biotechnology & Pharmaceutical Sciences - Senior Sponsor: Rx&D Health Research Foundation	\$300
<b>Total</b>	<b>\$9 800</b>