

Canada-Wide Science Fair Peterborough...



Mackenzie Carter, Maryhill, St. John's Kilmarnock School
STOL 'n' Lift

This project tested a new wing design that augmented short take off and landing characteristics for aircraft by redirecting high velocity air from the engines over top of the wings. The effect of the design on both thrust and lift were tested to determine that the stall speed of any aircraft can be greatly reduced.

Gold Medal, Senior Engineering, \$1500

Entrance Scholarships: University of Ottawa \$20,000,
University of Western Ontario \$4000, Dalhousie University
\$4000, Perimeter Institute International Summer School for
Young Physicists



Jenny Tian and Leslie Bothwell, Guelph, Centennial CVI

The Relation of Total Resistant Starch Concentration in Potatoes

This project determined the effects of variations in environmental conditions to the resulting concentrations of resistant starch in the potatoes tested. Results indicated that refrigerated potatoes contained higher resistant starch and slowly digestible starch content.

Honourable Mention, Senior Biotechnology & Pharmaceutical
Sciences



Sofia Oke & Noorain Shethwala, Guelph, Centennial CVI
Chemosensitizers: The Answer to Cancer

This project aimed to reduce the overall side effects of chemotherapy drugs by lowering the dosage of drug used. A BAX tumour suppressor gene and a fowl adenovirus were used as chemosensitizers to induce apoptosis in colon cancer cells. This showed that chemotherapy side effects can be lowered if patients are administered drugs in tandem with a functional BAX gene or a fowl adenovirus.

Sofia has been named one of Canada's Top 20 under 20.
 Bronze Medal, Senior Health Science \$300
 Entrance Scholarships: University of Western Ontario \$1000,
 University of Ottawa \$1000

Zach Elgood, New Hamburg, Cameron Heights CI
Methane Production & Removal in a Denitrifying Streambed
 Denitrifying bioreactors are efficient methods of removing surface water nitrate in agricultural areas. This study demonstrated a method for limiting methane emissions from a stream bed reactor.

Bronze Medal, Earth & Environmental Sciences \$300
 University of Western Ontario Entrance Scholarship \$1000



Steven Liu & Kevin Peng, Waterloo, Centennial PS
Stick It to the Man

The strength of different adhesives were investigated, including our all-natural and edible glue, GLeu, composed of 3 active ingredients: water, sugar and mochiko (sweet flour rice). Once microwaved, a translucent paste is created that showed a 1.5N advantage over LePage's children's glue.

Daniel Moholia, Kitchener, Cameron Heights CI
Solar Wind Hybrids

The Solar Wind Hybrid is a wind turbine with solar cells on its blades designed to harness the energy of the wind as well as the sun in an efficient way.



Science Fairs have allowed me to work on projects of my interest and to share my love of science with the larger community.

-Zach Elgood