CWSF 2006 - Saguenay, Québec

Sarah McCuaig

Antibacterial Toothpaste - Do Not Swallow

Division: Life Sciences
Category: Intermediate
Region: Waterloo-Wellington
City: Waterloo, ON
School: Sir John A. Macdonald S.S.

Abstract: The effects of antibacterial toothpaste, containing 0.3% triclosan, on the probiotic lactobacillus (HA-111) bacteria, found in the human gastrointestinal tract, were investigated. Zones of inhibition appeared around filter paper disks inoculated with Colgate Total antibacterial toothpaste that were plated on blood agar plates, swabbed with lactobacillus isolate. Inhibitory zones continued to grow for 24 hours, 12 hours longer than the toothpaste's claimed effectiveness.

Awards	Value
Australian National Youth Science Forum Award	$2 500
The University of Western Ontario Scholarship Bronze Medallist - $1000 Entrance Scholarship Sponsor: University of Western Ontario	$1 000
Bronze Medal - Health Sciences - Intermediate Sponsor: Canadian Institutes of Health Research	$300
Total	$3 800

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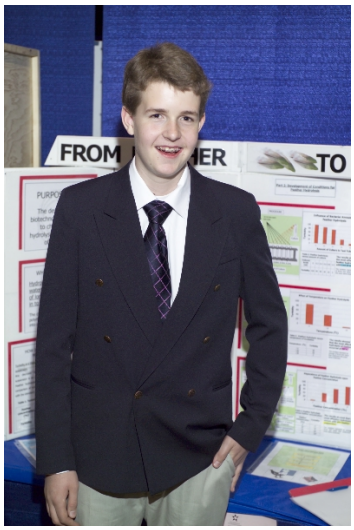

Daniel Burd

From Feather to Feed

Division: Biotechnology
Category: Intermediate
Region: Waterloo-Wellington
City: Waterloo, ON
School: Cameron Heights C.I.

Abstract: The poultry industry produces millions of tons of feather waste annually. A soil microbial consortium was isolated and the ability of these microorganisms to degrade chicken feathers was investigated. The results demonstrated that microbial conversion of feathers is a biotechnological process that improves the utilization of feathers as feed.

Awards	Value
Dr. Michael Smith Innovation Award - Intermediate Sponsor: Canada Foundation for Innovation	$750
The University of Western Ontario Scholarship Gold Medallist - $2000 Entrance Scholarship Sponsor: University of Western Ontario	$2 000
Gold Medal - Biotechnology & Pharmaceutical Sciences - Intermediate Sponsor: Rx&D Health Research Foundation	$1 500
Total	$4 250

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CWSF 2006 - Saguenay, Québec

Perryn Kruth, Brittany Martyn

Inhibition of C. difficile

Division: Life Sciences
Category: Intermediate
Region: Waterloo-Wellington
City: Guelph, ON
School: John F. Ross C.V.I.

Abstract: Clostridium difficile-related disease is an emerging health concern. We examined the effects of alternative treatments such as probiotic and antibody-rich products on toxins and growth of C. difficile. Results showed that both probiotic-related products and bovine colostrum neutralised C. difficile toxins, while only probiotic-related products inhibited bacterial growth.

Awards	Value
Honourable Mention - Health Sciences - Intermediate Sponsor: Canadian Institutes of Health Research	$100
Total	$100

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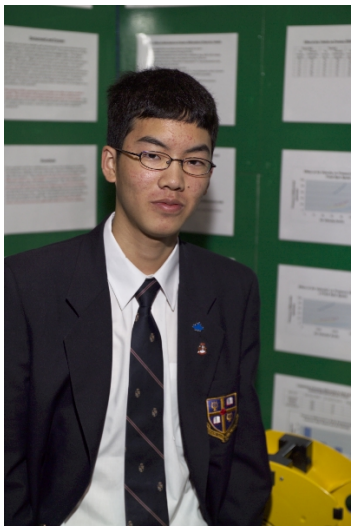

Jonathan Tomkun

Put a Spin On It

Division: International
Category: Senior
Region: Waterloo-Wellington
City: Waterloo, ON
School: St. John's-Kilmarnock School
Abstract: Four kinds of balls were spun at various rates and exposed to varying wind speeds. The pressure differential between opposite sides of each ball was measured. As the rate of spin increased, the pressure differential increased. As the wind speed increased, the pressure differential increased quadratically.

Awards	Value
CAP Physics Prize - Senior Sponsor: Canadian Association of Physicists	$1 000
The University of Western Ontario Scholarship Bronze Medallist - $1000 Entrance Scholarship Sponsor: University of Western Ontario	$1 000
Bronze Medal - Physical & Mathematical Sciences - Senior Sponsor: Encana Corporation	$300
Total	$2 300

CWSF 2006 - Saguenay, Québec

Kimberly Cai, Shazli Shethwala

Skin to Blood

Division: Life Sciences
Category: Senior
Region: Waterloo-Wellington
City: Guelph, ON
School: Centennial Collegiate & Vocational Institute

Abstract: Epithelial stem cells derived from the fetal mouse differentiated into blood cells and blood cell progenitors when cultured in media containing bone marrow cytokines. Such results open the possibility of creating bone marrow from patient skin for future bone marrow treatments. Skin stem cells may also present new sources of blood for patients with platelet disorders, low white blood cell count, and other blood-related diseases.

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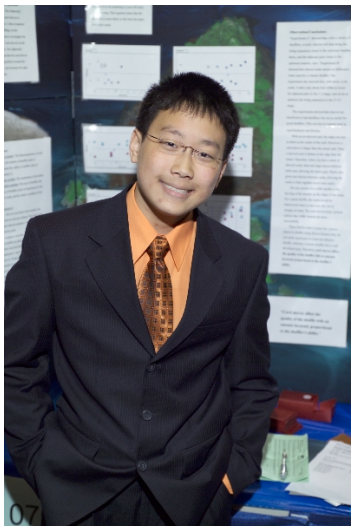

Eddie Kim

The Factorial Factor

Division: International
Category: Junior
Region: Waterloo-Wellington
City: New Dundee, ON
School: Courtland Avenue Senior P.S.
Abstract: The purpose of the experiment was to investigate whether card sleeves had an effect on the shuffling of a deck of cards. Results were measured by using "Rising Sequence" and "Adjacent Pairs" to evaluate randomness. Card sleeves were found to affect shuffling with an inverse proportion to the shuffler's skill.

Awards	Value
Honourable Mention - Physical & Mathematical Sciences - Junior Sponsor: Encana Corporation	$100
Total	$100

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