

Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



Best Project Award

Sponsor: The Gwyn Morgan and Patricia Trottier Foundation
Award, \$2,500 cash

Brendon Matusch [14] – Sudbury ON
Development of an Autonomous Vehicle Using Machine Learning

Platinum Award - Best Senior Project

Sponsor: The Gwyn Morgan and Patricia Trottier Foundation
Award, \$1,000 cash

Nicolas Fedrigo [17] – Vancouver Island BC
Spinal Fusions: Redesigning the Pedicle Probe to Prevent Vertebral Breaches

Platinum Award - Best Intermediate Project

Sponsor: The Gwyn Morgan and Patricia Trottier Foundation
Award, \$1,000 cash

Brendon Matusch [14] – Sudbury ON
Development of an Autonomous Vehicle Using Machine Learning

Platinum Award - Best Junior Project

Sponsor: The Gwyn Morgan and Patricia Trottier Foundation
Award, \$1,000 cash

Mac Dykeman [12] – 4-H Canada BC
Safer Chick-Ments: An Innovative Solution to Reducing Stress in Chick Shipments

Western University Scholarship

Gold Medallist - \$4000 Entrance Scholarship

Sponsor: Western University

An Entrance Scholarship of \$4,000 is offered to each winner of a Gold Medal; \$2,000 to each winner of a Silver Medal; and \$1,000 to each winner of a Bronze Medal.

Amal Aziz [16] – Thames Valley ON
A Switchable, Dual-Functioning Trojan Horse for Alzheimer's Disease Phototherapy

Madhumita Chandrasekaran [13] – Manitoba Schools Science Symposium MB
A Novel Approach to Efficiently Recycle Used Diapers in Optimizing Plant Growth

Kailas Chari [13] – Bay Area ON
Freezing Point Depression of Salt Solutions: Finding the best De-Icing Compound

Jason Chen [17] – Greater Vancouver BC
Value-added Phytochemical Cocktail from Inedible Dragon Fruit Peel

Mac Dykeman [12] – 4-H Canada BC
Safer Chick-Ments: An Innovative Solution to Reducing Stress in Chick Shipments

Allison Engo [13] – Montreal QC
How Fly Are Antioxidants?

Nicolas Fedrigo [17] – Vancouver Island BC
Spinal Fusions: Redesigning the Pedicle Probe to Prevent Vertebral Breaches

Aaranyo Ghosh [13] – Calgary Youth AB
A Novel Chemogenetic Approach to Treat Drug Resistant Hypertension

Shail Giroux [13] – Algoma Rotary ON
GGATS: GPS Guided Autonomous Transport System

Amy Gudmundson [14] – Western Manitoba MB
Notre avenir avec le vermicompostage !

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Julien-Pierre Houle [15] – Estrie QC

Tourner pour trouver!

Gavin Howells [14] – Yukon/Stikine YT

A Unique Approach to Test the Effects of Cell Phone Radiation using Yeast Cells

Markus Kunej [18] – Bay Area ON

The Echo Belt: Navigation Technology for the Visually Impaired

Jonathan Lévesque [17] – Québec et Chaudière-Appalaches QC

QualyL : le cœur robotique

Susan MacInnis [16] – Cape Breton NS

Accuracy of Eyewitness Testimony

Adam Martinez [16] – Waterloo-Wellington ON

An Engineered Biosensor for Detecting and Quantifying Silver & Copper Ions

Brendon Matusch [14] – Sudbury ON

Development of an Autonomous Vehicle Using Machine Learning

Albert Nitu [15] – Ottawa ON

A Novel DNAzyme-based Colorimetric Assay for Early Disease Diagnostics under \$10

Harry Parmar [14] – York ON

SYN-VIOLA: The Power of Novel, Designer Bacteria in Real World

Hannah McInnis [17], **Kendra Prasad** [16] – Lambton County ON

A Preliminary Study: Relationships Between Cannabis, Brain Injury and Sleep

Rebecca Rathlef [14] – Greater Vancouver BC

Are Natural Products Effective Sunscreens?

Devarsh Shah [15] – Lambton County ON

A Novel Quartz Crystal Microbalance Based Biosensor for Bacterial Detection

William Shen [18] – Greater Vancouver BC

Exploring the Genetic Basis of Dengue Virus Transmission

Simran Singh [13] – Ottawa ON

The Development of a Novel Diagnostic Method for Parkinson's Disease

Jana Steyn [15] – Cariboo Mainline BC

Between The Q & T

Janani Venkat [14] – Halifax NS

Effect of Chitosan on Plants under Abiotic and Biotic Stress

Jackson Weir [18] – Fundy NB

Experimental Analysis of Environmental Factors: Surface Spread of Oil on Water

Eli Wood [18] – Tri-County NS

Stimulation of the Vagus Nerve Through Targeted Temperature Therapy 2.0

Kerry Yang [13] – Sudbury ON

Fighting Heavy Metals-Induced Antibiotic Resistance: Dandelion Is the Key

Kenz Zaghbi [19] – Montréal RM QC

Nouvelle approche vers la synthèse de nanocatalyseurs pour la production d'H₂

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Silver Medallist - \$2000 Entrance Scholarship

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Aaron Varughese Abraham [16] – Calgary Youth AB

Predicting Alzheimer's via L-arginine Metabolites and Ensemble Machine Learnin

Kayla Absi [11] – Ottawa ON

Golden Pacifier — Tétine d'or

Monica Aida Lopez [15] – Calgary Youth AB

Developing Hypoallergenic Plants

Mohammed Al-Seragi [15] – Greater Vancouver BC

Don't Meddle With Metal: The Remediation of Pb(II) Wastewater

Tanner Altenkirk [15] – Chignecto West NS

The Method of Loci: A New Approach to Memory Challenges

Bryn Bain [12] – Frontenac, Lennox & Addington ON

UV-C Light to Prevent Microbes from Taking Flight

Mira Bhattacharya [14] – York ON

Natural Polymers and Absorption

Émilie Bertrand [19], **Eliane Bolduc** [18] – Estrie QC

Oh la vache!

Stella Bowles [14] – South Shore NS

Intertidal Foraminifera and Organic Pollution

Ankur Boyed [13] – Peel ON

Golf Balls: Future of Vehicle Design

Connie Cheng [18] – Waterloo-Wellington ON

A Novel Kidney-Mimicking Microfluidic Device for Hemodialysis

Melody Cheng [16] – Vancouver Island BC

Purifying Water: Using Beta-CD-CA Polymer to Remove Bisphenol A

Mitchell Clapperton [12] – Bay Area ON

Automated Pill Bottle Opener—A Solution for Avoiding Repetitive Strain Injurie

Harrison Cormier [14] – Greater Vancouver BC

Evaluating Stress Reduction Methods in Adolescents by Analyzing Key Bio Signals

Anabela Cotovio [17] – York ON

The Role of Microglia TREM2 on the Progression of Alzheimer's Disease

Maisie Cottrill [13] – Bluewater ON

Using Pi to Grow Your Greens: An Experiment in Greenhouse Automation

Sophia Cottrill [15] – Bluewater ON

Go With the Glow: UV Induced Fluorescence in Great Lakes Biota

Gabriel Dayan [19] – Montreal QC

An Immune Response to ALL

Maddie Dick [14] – Toronto ON

Driving While Intechxicated: Does Technology Affect Reaction Time?

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Faris Fizal [17] – Calgary Youth AB
Computationally Assessing the Structural Stability of HBOCs with MD Stimulations

Tim Gubski [14] – Calgary Youth AB
AI Based Driver Alert System

Jacob Harvey [18] – Winnipeg Schools MB
PHA Production from Degradation Products of Polyethylene Terephthalate

Oishi Hawlader [18] – Eastern Newfoundland NL
Sensory Effects of Dichoptic Saccadic Adaptation

Dheiksha Jayasankar [13] – Niagara ON
NanoAOX: Localization of Antioxidants via Nanoparticles to Enhance Plant Growth

Thomas Khairy [13] – Montreal QC
Heart to Heart

Abby Kitcher [13] – Niagara ON
I Will Remember Hue

Christopher Lamont [12] – Bay Area ON
Use of Technology to Reduce Medical Complications: Development of a Smart Cast

Rochelle Lariviere [14] – Sudbury ON
La phorie à la pholie

Léo Lechaume-Robert [17] – Québec et Chaudière-Appalaches QC
Attaquer le 7e continent !

Nikko-Johan Lee [17] – Calgary Youth AB
A Novel Strategy for Preferential Killing of Breast Cancer Cells

Yimeng Li [15] – Greater Vancouver BC
Developing a Novel Bacterial-Induced Cu(II) Crystallization Method

Andy Jia Kang Luo [15] – Greater Vancouver BC
Waste Nothing: A Future for the Microbial Electrolysis Cell

Sophie MacDonald [16] – Prince Edward Island PE
Drug Discovery from Actinobacteria Using a Temperature/Culture Mimic Approach

Lief MacTavish [17] – Ottawa ON
Using High Temperature Superconductors in the Search for Life on Enceladus

Wilfred Mason [19] – Montreal QC
Self-Assembling Bio-Photocells

Advait Maybhate [17] – Waterloo-Wellington ON
3DPocket - Computational Prediction of Ligand Binding Sites in Proteins

Nick Murray [17] – Greater Vancouver BC
Low-Cost, Point-of-Care Skin Cancer Detection

Pakeeza Mushtaq [16] – Southeast Alberta AB
Essential Oils: A Smelly Cancer Treatment

Jodh Singh Nahal [14] – Cariboo Mainline BC
Generate Bioenergy & Simultaneously Treat Wastewater with MFCs: A Novel

Joe Moak [12], **Davis Nicholson** [12] – Prince Edward Island PE
A Picture is Worth a Million Words

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-
- Saige Niemi** [16] – Northwestern Ontario ON
Removing Microplastics from Tap Water Starts with Sewage Treatment Plants
-
- Lauren Grace Ohnona** [13] – Vancouver Island BC
Microplastics in Our Local Shellfish
-
- Emma Palmer** [12] – Simcoe County ON
Off the Scales — Using Ozone as a Natural Pesticide
-
- Ashok Pandey** [16] – Waterloo-Wellington ON
The Effects of Yoga on Global Cardiovascular Risk: A 3-Month Intervention
-
- Shiv Patel** [13] – Durham ON
Natural versus Synthetic Preservatives
-
- Joshua Payne** [13] – Peel ON
The Terpenator
-
- Jasmine Rahman** [14] – Eastern Newfoundland NL
Optimizing Plant Growth Efficiency by Strategically Combining Organic Waste
-
- Tooba Razi** [17] – Manitoba Schools Science Symposium MB
Qualifying and Quantifying DNA Damage in Breast Cancer with Natural Products
-
- Aaron Sarkar** [15] – Eastern Newfoundland NL
Algae-Based Carbon Capture System: A Sustainable Solution for CO2 Emissions
-
- Crystal Coyne** [15], **Sarah Schaefer** [12] – Niagara ON
The Bee Hydration Station
-
- Krish Shah** [14] – Wood Buffalo AB
H.A.L.O.: Heart Ability LOG and Operator
-
- Aryan Singh** [16] – Ottawa ON
A Novel Colourimetric Lateral Flow Immunoassay for Breast Cancer Diagnostics
-
- Wendell Sta Maria** [13] – Regina SK
Electromyography
-
- Jude Victoria** [18] – Montreal QC
Enhancing SRD of Self-Assembling Polymeric Nanocarriers for Drug Delivery
-
- Nethra Wickramasinghe** [14] – Sudbury ON
A Novel Application to Increase Wellness Using Cognitive Behavioural Therapy
-
- Kaylyn Wilkinson** [12] – Simcoe County ON
Is Oobleck an Effective Material to Reduce the Impact on Helmets?
-
- Rory Wimberley** [14] – Greater Vancouver BC
Utility Stability: The Effectiveness of Self-Built Camera Stabilizers
-
- Kamron Zaidi** [16], **Sabrina Zaidi** [16] – York ON
The Effect of Surface Tension on Plant Growth in Fogponics
-
- Jacky Zhao** [17] – Greater Vancouver BC
Augmenting Hearing Capabilities of the Deaf with Natural Language Processing
-
- Selina Zhou** [17] – Greater Vancouver BC
How Stressed Are You?

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Nain Abdi [14] – Toronto ON

Don't Stress, Take a Breath

Om Agarwal [15] – Halifax NS

The Computerized Comprehension for a Curable Cancer

Sparsh Agrawal [15] – Manitoba Schools Science Symposium MB

A Novel Approach to Financial Portfolio Optimization Using BioInspired Computing

William Ahern [14] – Annapolis Valley NS

Fruit Flies Away

Ahmad Ali [16] – Windsor ON

SignSMART: Glove Translates ASL Fingerspelling into Text and Speech

Kira Allen [13] – Frontenac, Lennox & Addington ON

Who are you calling Bird Brain? Chickens may be smarter than you think!

Hadi Almalki [15] – Waterloo-Wellington ON

Tracking Bird Migration: A Novel Approach

Dhanishta Ambwani [15] – Fundy NB

Finding Antagonistic Bacteria to Control Verticillium dahliae

Janani Anandan [13] – Peel ON

iMonitor: A Novel Device to Detect Diabetic Peripheral Neuropathy

Elias Andersen [18] – Simcoe County ON

ChampTrax: A Novel Approach to Sports Analytics

Shaaf Babar [13] – Wood Buffalo AB

Smart Escape: A Dijkstra-Based Algorithm for Shortest-Safe Exit

Rebecca Baron [18] – Greater Vancouver BC

A Novel Microbial Biofiltration Technology for Improving Indoor Air Quality

Teryl Bates [15] – Central Okanagan BC

A Fibonacci Solution — Mitigating Landslides and Avalanches

Sameer Batla [13] – St. James-Assiniboia MB

Coping With Diabetes

Kalie Bennett [12] – Yukon/Stikine YT

Coloured Overlays: A Dyslexic's Friend?

Adrien Jabir Bouhtiauy [17] – Districts francophones du Nouveau-Brunswick NB

Commotions cérébrales non détectées... maintenant chose du passé !

Jacob Bowman [16] – Peterborough ON

Effects of road salt on brook trout and aquatic invertebrates in Harper Creek

Natasha Burgert [16] – South Fraser BC

The Solar EV: Applying high efficiency solar modules in sustainable transport

Erin Burt [17] – Eastern Newfoundland NL

The Science of Skiing: Effect of Terrain, Gender & Orthotics on Quadriceps Stress

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-
- Alex Chan** [17] – Frontenac, Lennox & Addington ON
Joint Solar Panel Cooling and Waste Heat Harvesting with a Stirling Engine
-
- Maxim Charbonneau** [13] – Rive-Nord QC
Nom d'une patate!
-
- Tyra Cockney-Goose** [18] – Beaufort-Delta NT
Catching ZZZ's (or not so much) — The Awakening Effects of Sleep Deprivation
-
- Willa Crowley** [13] – Central Interior British Columbia BC
Ungulate and Canid Interactions at a Mineral Lick
-
- Mavi Jeet Deol** [17] – Lambton County ON
A Novel Approach to Restore Connectivity in Spinal Nerve Systems
-
- Catherine Diyakonov** [13] – Greater Vancouver BC
Power Powder
-
- Vera Antunes** [13], **Brooke Donnelly** [12] – Algoma Rotary ON
Let It Snow?
-
- Maria Duynisveld** [17] – Chignecto East NS
*More Than Worms: Local legume phenols and *C. elegans* mortality*
-
- Milo Eirew** [14] – Greater Vancouver BC
Cardio Cardigan - A lifesaving robotic wearable to provide mobility & CPR
-
- Lydia Elbatarny** [16] – Frontenac, Lennox & Addington ON
A Sweet Drop Off: Evaluating Metal Organic Frameworks for Drug Delivery
-
- Abby Falkenham** [13] – Halifax NS
Road Safety: A Pedestrian Perspective
-
- Jaime Fletcher** [14] – Renfrew County ON
Sights Unseen: Investigating the Phenomenon of Inattentive Blindness
-
- Holden Ford** [13] – Waterloo-Wellington ON
Go Green or No Green?
-
- Riya Gandhi** [14] – Vancouver Island BC
A Cure for What 'Ails' You: A Study of the Antibacterial Effects of Garlic
-
- Owen Gariepy** [14] – Simcoe County ON
Fish, Feces and Flora: Aquaponics vs. Hydroponics vs. Agriculture
-
- Marc-Antoine Gobeil** [13] – Mauricie, Centre-du-Québec QC
Oxymétrie oculaire : innover!
-
- Emily Goodson** [14] – Simcoe County ON
Filtration of Smog
-
- Nicole Green** [18] – Central Alberta Rotary AB
Lead the Way: The Influence of Stereotype Threat on Women in Leadership Roles
-
- Élise Guerrero** [18] – Montréal RM QC
Les mers à la moutarde
-
- Neha Gupta** [13] – Bay Area ON
Using Catalysts to Increase Water Splitting Efficiency in a Homemade Fuel Cell
-
- Ray Hao** [15] – Ottawa ON
Radon: Silent but Deadly

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Amanda Hardman [16] – 4-H Canada AB <i>Crickets for Lunch — Turning Waste into Protein</i>
Sophie Healey [13] – Rideau-St. Lawrence ON <i>Do You Move Time?</i>
Fawzan Hussain [16] – South Fraser BC <i>Use of EEGs to Analyze Student Attention during Math Assessment</i>
Mitchell Hynes [18] – Eastern Newfoundland NL <i>Saturization: A New Method for Contrast in Monochromatic Vision</i>
Aidan James [14] – Halifax NS <i>Migratory Confusion in Leatherback Sea Turtles</i>
Krish Joshi [15] – Bay Area ON <i>Tackling Pseudomonas Biofilm Resistance: Using Bacteriophage-Phenolics Synergy</i>
Guntaas Kaur [14] – Peel ON <i>Discovering the Mechanism of Edelfosine, an Anticancer drug, Using α-Tocopherol</i>
Patricia Kelly [15] – River Valley NB <i>bSEMA: A Novel Approach to Pre-Determining Seismic Activity</i>
Margaret Kirke [13] – Ottawa ON <i>A Gift from the Sea: Soothing Eczema with Seaweed</i>
Daniel Kornylo [14] – Northern Vancouver Island BC <i>Light Orchestrator Part 1</i>
Kasia Kowalski [14] – South Shore NS <i>Mycoremediation: One Way Fungi Can Save the World</i>
Simon Lafontaine [17] – Montérégie QC <i>Tes parents en disent quoi?</i>
Neleah Lavoie [14] – 4-H Canada PE <i>Cost-Effective Extraction of Chitin and Chitosan from Lobster Shells</i>
Aaron Lee [14] – Greater Vancouver BC <i>Bunny Business</i>
Laurence Liang [16] – Montréal RM QC <i>Le cerveau en algorithme</i>
Jonathon Macmillan [16] – Chignecto West NS <i>Supercharged Salad</i>
Ainsley Horton [15], Kate MacMillan [15] – Central Okanagan BC <i>Pitting Against Artificial Preservatives</i>
Monica Mahut [15] – Bay Area ON <i>WATS UP: Water Activated Transportation System Uplifting Physics</i>
Stefanie Mahut [13] – Bay Area ON <i>TWEET: Torsionally Whirling Environmentally Esthetic Turbine</i>
Connor McCourt [13] – Bay Area ON <i>Pee-Tricity: Generating Electricity from Urine using Microbial Fuel Cells</i>
Cameron McMillan [16] – Prairie Valley SK <i>Trainium</i>

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-
- Vikita Mehta** [17] – York ON
A Novel Optogenetic Toggle Switch for Targeted Anticancer Drug Delivery
-
- Teodora Milos** [16] – South Shore NS
A Novel Intelligent Irrigation System via Python Program
-
- Henley Mullins** [13] – Eastern Newfoundland NL
Rockets are Such a Drag
-
- Aidan Mundle** [16] – Quinte ON
Small Engine Carbon Capture
-
- Finley Nakatsu** [13] – Halifax NS
Dragging on — The Effect of Length, Surface Coating and Stern Angle on Drag
-
- Ayana Nanthakumar** [14] – Peel ON
Developing The Electrocardiogram as a Unique Biometric Identifier
-
- Emilia Oliver** [13] – Timmins ON
Don't Throw it Away Yet: Using food waste to remove arsenic from water
-
- Sarra Parker** [17] – Ottawa ON
Microbial Fuel Cells: Energy for Tomorrow
-
- Dhruv Patel** [18] – Wood Buffalo AB
HIRO: An Intelligent System for Drowsy Driving Detection
-
- Dhvani Patel** [18] – Wood Buffalo AB
W.A.A.! SMART Infant Health Technology
-
- Adam Patton** [14] – Cariboo Mainline BC
The Power of Water: Finding Alternative Electrodes for Hydrogen Production
-
- Maude Landry** [15], **Sarah Pelletier** [15] – Districts francophones du Nouveau-Brunswick NB
Les effets du stress sur les plants de piments habanero
-
- Juliette Péloquin** [17] – Montérégie QC
Diabète sucré... à l'érable
-
- Hayden Persad** [14] – West Kootenay & Boundary BC
Food Waste: The Solution to Our Plastic Problem
-
- Victoria Devine-Ducharme** [14], **Zoey Phillips** [15] – Ottawa ON
Aerobiology: The New and Innovative Way to Solve the Pollen Epidemic
-
- Ella Pilot** [12] – Northwestern Ontario ON
A Study of the Prevalence of Gram-Negative Bacteria in School Soil
-
- David Popa** [14] – Calgary Youth AB
Applying User-Centred Design to Educational Math Games
-
- Bruce Porter** [13] – Yukon/Stikine YT
South Paw — Examining Paw Preference in Dogs and Connections to Human
-
- Angie Redford** [16] – Sunset Country ON
Fidget Spinners: A Charged Topic
-
- Madighan Ryan** [13] – Ottawa QC
Novel Myotonic Dystrophy Type 1 Drug Treatment
-
- Ishaan Sachdeva** [17] – Northwestern Ontario ON
Promising Future of Algae Based Silver Chloride Nanoparticles as Antibiotics

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Kavin Satheeskumar [15] – Thames Valley ON

Blown Away

Anthony Saturnino [12] – Bay Area ON

HCDPS — Hot Car Death Prevention System

Monis Sayyid [13], **Jack Sloan** [14] – Rideau-St. Lawrence ON

Germination Determination

Neila Selouani [12] – Districts francophones du Nouveau-Brunswick NB

SNAP 29 : un nouveau test adapté pour détecter le TDAH

Sasha Seufert [16] – Waterloo-Wellington ON

Delivering of DNA to Tardigrades via Nematocysts

Sana Shams [15] – South Fraser BC

Radioactivity vs. Fashion

Cheryl Chen [13], **Stuti Sharma** [13] – South Fraser BC

Cede: A Novel Approach to Astronomical Profit

Yu Chen Shi [16], **Qiu Shi Wang** [17] – Montréal RM QC

Trop loin de l'école?

Rory Smith [17] – East Kootenay BC

Targeted Oxidation: A New Method for Local Chemotherapeutic Medicine

Syni Solanki [14] – Peel ON

Analyzing Therapeutic Effect of B.bacterium & L.bacillus on Ovarian Cancer Cells

Michelle Song [15] – Annapolis Valley NS

The Use of Yeast to Prevent Fungal Diseases in Horticultural Produce

Shaelagh Stephan [15] – Saskatoon SK

Plant Waste to Biodegradable Bioplastics

Lara Stewart [15], **Liesl Stewart** [15] – 4-H Canada AB

Biosecurity Disinfectant Efficacy

Tyler Sun [15], **Peter Zhu** [15] – River Valley NB

COMET: A Novel Training Method to Optimize Robustness in Myoelectric Control

Kayli Taylor [14] – Northern British Columbia BC

Hydroseeding: Plant regrowth help for logging blocks where wood chips are used

Holly Tetzlaff [17] – Peterborough ON

Disappearance ≠ Disintegration ~ The Environmental Impact of Pseudo Flushables

Zachary Rodgers [15], **Griffon Thomas** [16] – Bluewater ON

The Clubroot Epidemic

Zachary Trefler [17] – Waterloo-Wellington ON

VoiceShield: Teaching Computers to Distinguish Real Data From Fake

Emmy Tremblay [17] – Saguenay-Lac Saint-Jean QC

Embarquez... l'avenir s'envole

Norah Trinh [14] – Lethbridge AB

Reuse, Reduce, Reprint

Ozan Ürkmez [17] – Strait NS

Delve Into Dimensions

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Catalina van der Raadt [14] – Calgary Youth AB
Soft Pneumatic Robot

Nikki van Schaik [13] – Simcoe County ON
Restoring the Reefs

Mary Wan [16] – Calgary Youth AB
Artemis and Recovery After Radiation and Chemotherapy Induced DNA Damage

Hailin Wang [17] – Niagara ON
Affordable Mechatronics Solution for Independent Movement Assistance

Yi Yuan Ma [17], **Jing Wang** [17] – Toronto ON
Cancer Detection with Artificial Intelligence

Brooklynn Watson [13] – Northern Vancouver Island BC
Genome Engineering Technologies

Tess Wellington [13] – Pacific Northwest BC
Here's the Buzz About Bee Houses

Chloe Williston [12] – Pacific Northwest BC
Nature: who knows, who cares?

Jasmine Laney Wood [18] – Island Lake MB
Nonverbal Communication

Austin Wu [16] – York ON
A Novel Approach to Combat Cancer by Altering Sphingomyelin Content in Cells

David Wu [16] – Thames Valley ON
The Efficacy of Cancer Chemotherapy Combinations with Cranberry Extract

Ellie Xu [17] – Bay Area ON
C.O.D.I.A. (Computer Operated & Delightfully Intelligent Assistant)

Albert Yang [17] – Vancouver Island BC
Control for Groups of Robots - Collaborative Search and Rescue

Jessica Yemen [14] – Renfrew County ON
So-Dis is Water Treatment

Emily Zbaraschuk [15] – Prince Albert & Northeast Saskatchewan SK
The Effects of Copper, Humic Acid and Fungicide on Fusarium Head Blight in Wheat

Angela Zhang [16] – Waterloo-Wellington ON
The Ocean: Not a Rock Concert

Matthew Zhou [16] – Thames Valley ON
From Brain to Heart: Complications following Insular Ischemic Stroke

University of Ottawa Entrance Scholarship

Senior Gold Medallist - \$4,000 Entrance Scholarship

Sponsor: University of Ottawa

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Amal Aziz [16] – Thames Valley ON
A Switchable, Dual-Functioning Trojan Horse for Alzheimer's Disease Phototherapy

Jason Chen [17] – Greater Vancouver BC
Value-added Phytochemical Cocktail from Inedible Dragon Fruit Peel

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Jonathan Lévesque [17] – Québec et Chaudière-Appalaches QC
QualyL : le cœur robotique

Hannah McInnis [17], **Kendra Prasad** [16] – Lambton County ON
A Preliminary Study: Relationships Between Cannabis, Brain Injury and Sleep

William Shen [18] – Greater Vancouver BC
Exploring the Genetic Basis of Dengue Virus Transmission

Jackson Weir [18] – Fundy NB
Experimental Analysis of Environmental Factors: Surface Spread of Oil on Water

Eli Wood [18] – Tri-County NS
Stimulation of the Vagus Nerve Through Targeted Temperature Therapy 2.0

Kenz Zaghib [19] – Montréal RM QC
Nouvelle approche vers la synthèse de nanocatalyseurs pour la production d'H₂

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Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



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Selina Zhou [17] – Greater Vancouver BC
How Stressed Are You?

University of Ottawa Entrance Scholarship

Senior Bronze Medallist - \$1000 Entrance Scholarship

Sponsor: University of Ottawa

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- Aidan Mundle** [16] – Quinte ON
Small Engine Carbon Capture
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Microbial Fuel Cells: Energy for Tomorrow
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HIRO: An Intelligent System for Drowsy Driving Detection
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W.A.A.! SMART Infant Health Technology
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- Juliette Péloquin** [17] – Montérégie QC
Diabète sucré... à l'érable
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- Ishaan Sachdeva** [17] – Northwestern Ontario ON
Promising Future of Algae Based Silver Chloride Nanoparticles as Antibiotics
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- Yu Chen Shi** [16], **Qiu Shi Wang** [17] – Montréal RM QC
Trop loin de l'école?
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- Rory Smith** [17] – East Kootenay BC
Targeted Oxidation: A New Method for Local Chemotherapeutic Medicine
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- Holly Tetzlaff** [17] – Peterborough ON
Disappearance ≠ Disintegration ~ The Environmental Impact of Pseudo Flushables
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- Zachary Rodgers** [15], **Griffon Thomas** [16] – Bluewater ON
The Clubroot Epidemic
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- Zachary Trefler** [17] – Waterloo-Wellington ON
VoiceShield: Teaching Computers to Distinguish Real Data From Fake
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- Emmy Tremblay** [17] – Saguenay-Lac Saint-Jean QC
Embarquez... l'avenir s'envole
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- Ozan Ürkmez** [17] – Strait NS
Delve Into Dimensions
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- Mary Wan** [16] – Calgary Youth AB
Artemis and Recovery After Radiation and Chemotherapy Induced DNA Damage

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Ottawa, Ontario



Hailin Wang [17] – Niagara ON

Affordable Mechatronics Solution for Independent Movement Assistance

Yi Yuan Ma [17], **Jing Wang** [17] – Toronto ON

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C.O.D.I.A. (Computer Operated & Delightfully Intelligent Assistant)

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Control for Groups of Robots - Collaborative Search and Rescue

Angela Zhang [16] – Waterloo-Wellington ON

The Ocean: Not a Rock Concert

Matthew Zhou [16] – Thames Valley ON

From Brain to Heart: Complications following Insular Ischemic Stroke

University of Manitoba Entrance Scholarship

Senior Gold Medallist - \$5000 Entrance Scholarship

Sponsor: University of Manitoba

The Office of the Vice-President (Research and International) at the University of Manitoba offers a renewable entrance scholarship for students who have been awarded a Gold Medal for a senior project at the Youth Science Canada's - Canada-Wide Science Fair.

The award is renewable, at the same value, in the second year of study provided that the recipient:

1. continues to be enrolled full-time (minimum 24 credit hours) in any faculty or school, excepting the Faculty of Graduate Studies;

Amal Aziz [16] – Thames Valley ON

A Switchable, Dual-Functioning Trojan Horse for Alzheimer's Disease Phototherapy

Jason Chen [17] – Greater Vancouver BC

Value-added Phytochemical Cocktail from Inedible Dragon Fruit Peel

Nicolas Fedrigo [17] – Vancouver Island BC

Spinal Fusions: Redesigning the Pedicle Probe to Prevent Vertebral Breaches

Markus Kunej [18] – Bay Area ON

The Echo Belt: Navigation Technology for the Visually Impaired

Jonathan Lévesque [17] – Québec et Chaudière-Appalaches QC

QalyL : le cœur robotique

Hannah McInnis [17], **Kendra Prasad** [16] – Lambton County ON

A Preliminary Study: Relationships Between Cannabis, Brain Injury and Sleep

William Shen [18] – Greater Vancouver BC

Exploring the Genetic Basis of Dengue Virus Transmission

Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



Jackson Weir [18] – Fundy NB

Experimental Analysis of Environmental Factors: Surface Spread of Oil on Water

Eli Wood [18] – Tri-County NS

Stimulation of the Vagus Nerve Through Targeted Temperature Therapy 2.0

Kenz Zaghib [19] – Montréal RM QC

Nouvelle approche vers la synthèse de nanocatalyseurs pour la production d'H₂

UBC Science (Vancouver) Entrance Award

Senior Gold Medallist - \$4000 Entrance Scholarship

Sponsor: The University of British Columbia (Vancouver)

A UBC Vancouver Science entrance scholarship is offered, \$4,000 to each senior gold medalist and \$2,000 to each senior silver medalist. To be eligible for the scholarships, finalists must be admitted to the UBC Faculty of Science (Vancouver campus) and register directly from secondary school. Winners who are in grade eleven may defer the award for one year.

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UBC Science (Vancouver) Entrance Award

Senior Silver Medallist - \$2000 Entrance Scholarship

Sponsor: The University of British Columbia (Vancouver)

A UBC Vancouver Science entrance scholarship is offered, \$4,000 to each senior gold medalist and \$2,000 to each senior silver medalist. To be eligible for the scholarships, finalists must be admitted to the UBC Faculty of Science (Vancouver campus) and register directly from secondary school. Winners who are in grade eleven may defer the award for one year.

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Predicting Alzheimer's via L-arginine Metabolites and Ensemble Machine Learning

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Oh la vache!

Connie Cheng [18] – Waterloo-Wellington ON

A Novel Kidney-Mimicking Microfluidic Device for Hemodialysis

Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



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The Role of Microglia TREM2 on the Progression of Alzheimer's Disease

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Augmenting Hearing Capabilities of the Deaf with Natural Language Processing

Selina Zhou [17] – Greater Vancouver BC

How Stressed Are You?

Dalhousie University Faculty of Science Entrance Scholarship

Senior Gold Medallist - \$5000 Entrance Scholarship

Sponsor: Dalhousie University, Faculty of Science

A Dalhousie University Faculty of Science entrance scholarship of \$5,000 is offered to each gold medal winning senior finalist. A Dalhousie University Faculty of Science entrance scholarship of \$2,500 is offered to each silver medal winning senior finalist.

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Ottawa, Ontario



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Dalhousie University Faculty of Science Entrance Scholarship

Senior Silver Medallist - \$2500 Entrance Scholarship

Sponsor: Dalhousie University, Faculty of Science

A Dalhousie University Faculty of Science entrance scholarship of \$5,000 is offered to each gold medal winning senior finalist. A Dalhousie University Faculty of Science entrance scholarship of \$2,500 is offered to each silver medal winning senior finalist.

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Carleton University Entrance Award

Senior Gold Medallist - \$4,000 Entrance Award

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Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



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Small Engine Carbon Capture

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Canada-Wide Science Fair 2018

Ottawa, Ontario



Sarra Parker [17] – Ottawa ON <i>Microbial Fuel Cells: Energy for Tomorrow</i>
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Ellie Xu [17] – Bay Area ON <i>C.O.D.I.A. (Computer Operated & Delightfully Intelligent Assistant)</i>
Albert Yang [17] – Vancouver Island BC <i>Control for Groups of Robots - Collaborative Search and Rescue</i>
Angela Zhang [16] – Waterloo-Wellington ON <i>The Ocean: Not a Rock Concert</i>

Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



Matthew Zhou [16] – Thames Valley ON
From Brain to Heart: Complications following Insular Ischemic Stroke

Excellence Award - Senior

Gold Medal

Sponsor: Youth Science Canada

Medal and certificate

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A Switchable, Dual-Functioning Trojan Horse for Alzheimer's Disease Phototherapy

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Kenz Zaghib [19] – Montréal RM QC
Nouvelle approche vers la synthèse de nanocatalyseurs pour la production d'H₂

Excellence Award - Intermediate

Gold Medal

Sponsor: Youth Science Canada

Medal and certificate

Allison Engo [13] – Montreal QC
How Fly Are Antioxidants?

Julien-Pierre Houle [15] – Estrie QC
Tourner pour trouver!

Susan MacInnis [16] – Cape Breton NS
Accuracy of Eyewitness Testimony

Adam Martinez [16] – Waterloo-Wellington ON
An Engineered Biosensor for Detecting and Quantifying Silver & Copper Ions

Brendon Matusch [14] – Sudbury ON
Development of an Autonomous Vehicle Using Machine Learning

Albert Nitu [15] – Ottawa ON
A Novel DNAAzyme-based Colorimetric Assay for Early Disease Diagnostics under \$10

Harry Parmar [14] – York ON
SYN-VIOLA: The Power of Novel, Designer Bacteria in Real World

Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



Devarsh Shah [15] – Lambton County ON
A Novel Quartz Crystal Microbalance Based Biosensor for Bacterial Detection

Jana Steyn [15] – Cariboo Mainline BC
Between The Q & T

Janani Venkat [14] – Halifax NS
Effect of Chitosan on Plants under Abiotic and Biotic Stress

Excellence Award - Junior

Gold Medal

Sponsor: Youth Science Canada
Medal and certificate

Madhumita Chandrasekaran [13] – Manitoba Schools Science Symposium MB
A Novel Approach to Efficiently Recycle Used Diapers in Optimizing Plant Growth

Kailas Chari [13] – Bay Area ON
Freezing Point Depression of Salt Solutions: Finding the best De-Icing Compound

Mac Dykeman [12] – 4-H Canada BC
Safer Chick-Ments: An Innovative Solution to Reducing Stress in Chick Shipments

Aaranyo Ghosh [13] – Calgary Youth AB
A Novel Chemogenetic Approach to Treat Drug Resistant Hypertension

Shail Giroux [13] – Algoma Rotary ON
GGATS: GPS Guided Autonomous Transport System

Amy Gudmundson [14] – Western Manitoba MB
Notre avenir avec le vermicompostage !

Gavin Howells [14] – Yukon/Stikine YT
A Unique Approach to Test the Effects of Cell Phone Radiation using Yeast Cells

Rebecca Rathlef [14] – Greater Vancouver BC
Are Natural Products Effective Sunscreens?

Simran Singh [13] – Ottawa ON
The Development of a Novel Diagnostic Method for Parkinson's Disease

Kerry Yang [13] – Sudbury ON
Fighting Heavy Metals-Induced Antibiotic Resistance: Dandelion Is the Key

Excellence Award - Senior

Silver Medal

Sponsor: Youth Science Canada
Medal and certificate

Aaron Varughese Abraham [16] – Calgary Youth AB
Predicting Alzheimer's via L-arginine Metabolites and Ensemble Machine Learning

Émilie Bertrand [19], **Eliane Bolduc** [18] – Estrie QC
Oh la vache!

Connie Cheng [18] – Waterloo-Wellington ON
A Novel Kidney-Mimicking Microfluidic Device for Hemodialysis

Anabela Cotovio [17] – York ON
The Role of Microglia TREM2 on the Progression of Alzheimer's Disease

Gabriel Dayan [19] – Montreal QC
An Immune Response to ALL

Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



Faris Fizal [17] – Calgary Youth AB
Computationally Assessing the Structural Stability of HBOCs with MD Stimulations

Jacob Harvey [18] – Winnipeg Schools MB
PHA Production from Degradation Products of Polyethylene Terephthalate

Oishi Hawlader [18] – Eastern Newfoundland NL
Sensory Effects of Dichoptic Saccadic Adaptation

Léo Lechaume-Robert [17] – Québec et Chaudière-Appalaches QC
Attaquer le 7e continent !

Nikko-Johan Lee [17] – Calgary Youth AB
A Novel Strategy for Preferential Killing of Breast Cancer Cells

Lief MacTavish [17] – Ottawa ON
Using High Temperature Superconductors in the Search for Life on Enceladus

Wilfred Mason [19] – Montreal QC
Self-Assembling Bio-Photocells

Advait Maybhate [17] – Waterloo-Wellington ON
3DPocket - Computational Prediction of Ligand Binding Sites in Proteins

Nick Murray [17] – Greater Vancouver BC
Low-Cost, Point-of-Care Skin Cancer Detection

Tooba Razi [17] – Manitoba Schools Science Symposium MB
Qualifying and Quantifying DNA Damage in Breast Cancer with Natural Products

Aryan Singh [16] – Ottawa ON
A Novel Colourimetric Lateral Flow Immunoassay for Breast Cancer Diagnostics

Jude Victoria [18] – Montreal QC
Enhancing SRD of Self-Assembling Polymeric Nanocarriers for Drug Delivery

Kamron Zaidi [16], **Sabrina Zaidi** [16] – York ON
The Effect of Surface Tension on Plant Growth in Fogponics

Jacky Zhao [17] – Greater Vancouver BC
Augmenting Hearing Capabilities of the Deaf with Natural Language Processing

Selina Zhou [17] – Greater Vancouver BC
How Stressed Are You?

Excellence Award - Intermediate

Silver Medal

Sponsor: Youth Science Canada
Medal and certificate

Monica Aida Lopez [15] – Calgary Youth AB
Developing Hypoallergenic Plants

Mohammed Al-Seragi [15] – Greater Vancouver BC
Don't Meddle With Metal: The Remediation of Pb(II) Wastewater

Tanner Alenkirk [15] – Chignecto West NS
The Method of Loci: A New Approach to Memory Challenges

Mira Bhattacharya [14] – York ON
Natural Polymers and Absorption

Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



Melody Cheng [16] – Vancouver Island BC <i>Purifying Water: Using Beta-CD-CA Polymer to Remove Bisphenol A</i>
Sophia Cottrill [15] – Bluewater ON <i>Go With the Glow: UV Induced Fluorescence in Great Lakes Biota</i>
Maddie Dick [14] – Toronto ON <i>Driving While Intechxicated: Does Technology Affect Reaction Time?</i>
Tim Gubski [14] – Calgary Youth AB <i>AI Based Driver Alert System</i>
Thomas Khairy [13] – Montreal QC <i>Heart to Heart</i>
Yimeng Li [15] – Greater Vancouver BC <i>Developing a Novel Bacterial-Induced Cu(II) Crystallization Method</i>
Andy Jia Kang Luo [15] – Greater Vancouver BC <i>Waste Nothing: A Future for the Microbial Electrolysis Cell</i>
Sophie MacDonald [16] – Prince Edward Island PE <i>Drug Discovery from Actinobacteria Using a Temperature/Culture Mimic Approach</i>
Pakeeza Mushtaq [16] – Southeast Alberta AB <i>Essential Oils: A Smelly Cancer Treatment</i>
Saige Niemi [16] – Northwestern Ontario ON <i>Removing Microplastics from Tap Water Starts with Sewage Treatment Plants</i>
Ashok Pandey [16] – Waterloo-Wellington ON <i>The Effects of Yoga on Global Cardiovascular Risk: A 3-Month Intervention</i>
Jasmine Rahman [14] – Eastern Newfoundland NL <i>Optimizing Plant Growth Efficiency by Strategically Combining Organic Waste</i>
Aaron Sarkar [15] – Eastern Newfoundland NL <i>Algae-Based Carbon Capture System: A Sustainable Solution for CO2 Emissions</i>
Crystal Coyne [15], Sarah Schaefer [12] – Niagara ON <i>The Bee Hydration Station</i>
Krish Shah [14] – Wood Buffalo AB <i>H.A.L.O.: Heart Ability LOG and Operator</i>
Nethra Wickramasinghe [14] – Sudbury ON <i>A Novel Application to Increase Wellness Using Cognitive Behavioural Therapy</i>

Excellence Award - Junior

Silver Medal

Sponsor: Youth Science Canada

Medal and certificate

Kayla Absi [11] – Ottawa ON <i>Golden Pacifier — Tétine d'or</i>
Bryn Bain [12] – Frontenac, Lennox & Addington ON <i>UV-C Light to Prevent Microbes from Taking Flight</i>
Stella Bowles [14] – South Shore NS <i>Intertidal Foraminifera and Organic Pollution</i>

Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



Ankur Boyed [13] – Peel ON

Golf Balls: Future of Vehicle Design

Mitchell Clapperton [12] – Bay Area ON

Automated Pill Bottle Opener—A Solution for Avoiding Repetitive Strain Injuries

Harrison Cormier [14] – Greater Vancouver BC

Evaluating Stress Reduction Methods in Adolescents by Analyzing Key Bio Signals

Maisie Cottrill [13] – Bluewater ON

Using Pi to Grow Your Greens: An Experiment in Greenhouse Automation

Dheiksha Jayasankar [13] – Niagara ON

NanoAOX: Localization of Antioxidants via Nanoparticles to Enhance Plant Growth

Abby Kitcher [13] – Niagara ON

I Will Remember Hue

Christopher Lamont [12] – Bay Area ON

Use of Technology to Reduce Medical Complications: Development of a Smart Cast

Rochelle Lariviere [14] – Sudbury ON

La phorie à la pholie

Jodh Singh Nahal [14] – Cariboo Mainline BC

Generate Bioenergy & Simultaneously Treat Wastewater with MFCs: A Novel

Joe Moak [12], **Davis Nicholson** [12] – Prince Edward Island PE

A Picture is Worth a Million Words

Lauren Grace Ohnona [13] – Vancouver Island BC

Microplastics in Our Local Shellfish

Emma Palmer [12] – Simcoe County ON

Off the Scales — Using Ozone as a Natural Pesticide

Shiv Patel [13] – Durham ON

Natural versus Synthetic Preservatives

Joshua Payne [13] – Peel ON

The Terpenator

Wendell Sta Maria [13] – Regina SK

Electromyography

Kaylyn Wilkinson [12] – Simcoe County ON

Is Oobleck an Effective Material to Reduce the Impact on Helmets?

Rory Wimberley [14] – Greater Vancouver BC

Utility Stability: The Effectiveness of Self-Built Camera Stabilizers

Excellence Award - Senior

Bronze Medal

Sponsor: Youth Science Canada

Medal and certificate

Ahmad Ali [16] – Windsor ON

SignSMART: Glove Translates ASL Fingerspelling into Text and Speech

Elias Andersen [18] – Simcoe County ON

ChampTrax: A Novel Approach to Sports Analytics

Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



-
- Rebecca Baron** [18] – Greater Vancouver BC
A Novel Microbial Biofiltration Technology for Improving Indoor Air Quality
-
- Adrien Jabir Bouhtiauy** [17] – Districts francophones du Nouveau-Brunswick NB
Commotions cérébrales non détectées... maintenant chose du passé !
-
- Natasha Burgert** [16] – South Fraser BC
The Solar EV: Applying high efficiency solar modules in sustainable transport
-
- Erin Burt** [17] – Eastern Newfoundland NL
The Science of Skiing: Effect of Terrain, Gender & Orthotics on Quadriceps Stress
-
- Alex Chan** [17] – Frontenac, Lennox & Addington ON
Joint Solar Panel Cooling and Waste Heat Harvesting with a Stirling Engine
-
- Tyra Cockney-Goose** [18] – Beaufort-Delta NT
Catching ZZZ's (or not so much) — The Awakening Effects of Sleep Deprivation
-
- Mavi Jeet Deol** [17] – Lambton County ON
A Novel Approach to Restore Connectivity in Spinal Nerve Systems
-
- Maria Duynisveld** [17] – Chignecto East NS
More Than Worms: Local legume phenols and C. elegans mortality
-
- Lydia Elbatarny** [16] – Frontenac, Lennox & Addington ON
A Sweet Drop Off: Evaluating Metal Organic Frameworks for Drug Delivery
-
- Nicole Green** [18] – Central Alberta Rotary AB
Lead the Way: The Influence of Stereotype Threat on Women in Leadership Roles
-
- Élise Guerrero** [18] – Montréal RM QC
Les mers à la moutarde
-
- Mitchell Hynes** [18] – Eastern Newfoundland NL
Saturization: A New Method for Contrast in Monochromatic Vision
-
- Simon Lafontaine** [17] – Montérégie QC
Tes parents en disent quoi?
-
- Vikita Mehta** [17] – York ON
A Novel Optogenetic Toggle Switch for Targeted Anticancer Drug Delivery
-
- Teodora Milos** [16] – South Shore NS
A Novel Intelligent Irrigation System via Python Program
-
- Aidan Mundle** [16] – Quinte ON
Small Engine Carbon Capture
-
- Sarra Parker** [17] – Ottawa ON
Microbial Fuel Cells: Energy for Tomorrow
-
- Dhruv Patel** [18] – Wood Buffalo AB
HIRO: An Intelligent System for Drowsy Driving Detection
-
- Dhvani Patel** [18] – Wood Buffalo AB
W.A.A.! SMART Infant Health Technology
-
- Juliette Péloquin** [17] – Montérégie QC
Diabète sucré... à l'érable
-
- Ishaan Sachdeva** [17] – Northwestern Ontario ON
Promising Future of Algae Based Silver Chloride Nanoparticles as Antibiotics

Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



Yu Chen Shi [16], Qiu Shi Wang [17] – Montréal RM QC

Trop loin de l'école?

Rory Smith [17] – East Kootenay BC

Targeted Oxidation: A New Method for Local Chemotherapeutic Medicine

Holly Tetzlaff [17] – Peterborough ON

Disappearance ≠ Disintegration ~ The Environmental Impact of Pseudo Flushables

Zachary Rodgers [15], Griffon Thomas [16] – Bluewater ON

The Clubroot Epidemic

Zachary Trefler [17] – Waterloo-Wellington ON

VoiceShield: Teaching Computers to Distinguish Real Data From Fake

Emmy Tremblay [17] – Saguenay-Lac Saint-Jean QC

Embarquez... l'avenir s'envole

Ozan Ürkmez [17] – Strait NS

Delve Into Dimensions

Mary Wan [16] – Calgary Youth AB

Artemis and Recovery After Radiation and Chemotherapy Induced DNA Damage

Hailin Wang [17] – Niagara ON

Affordable Mechatronics Solution for Independent Movement Assistance

Yi Yuan Ma [17], Jing Wang [17] – Toronto ON

Cancer Detection with Artificial Intelligence

Jasmine Laney Wood [18] – Island Lake MB

Nonverbal Communication

Austin Wu [16] – York ON

A Novel Approach to Combat Cancer by Altering Sphingomyelin Content in Cells

David Wu [16] – Thames Valley ON

The Efficacy of Cancer Chemotherapy Combinations with Cranberry Extract

Ellie Xu [17] – Bay Area ON

C.O.D.I.A. (Computer Operated & Delightfully Intelligent Assistant)

Albert Yang [17] – Vancouver Island BC

Control for Groups of Robots - Collaborative Search and Rescue

Angela Zhang [16] – Waterloo-Wellington ON

The Ocean: Not a Rock Concert

Matthew Zhou [16] – Thames Valley ON

From Brain to Heart: Complications following Insular Ischemic Stroke

Excellence Award - Intermediate

Bronze Medal

Sponsor: Youth Science Canada

Medal and certificate

Om Agarwal [15] – Halifax NS

The Computerized Comprehension for a Curable Cancer

Sparsh Agrawal [15] – Manitoba Schools Science Symposium MB

A Novel Approach to Financial Portfolio Optimization Using BioInspired Computing

Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



-
- Hadi Almalki** [15] – Waterloo-Wellington ON
Tracking Bird Migration: A Novel Approach
-
- Dhanishta Ambwani** [15] – Fundy NB
*Finding Antagonistic Bacteria to Control *Verticillium dahliae**
-
- Teryl Bates** [15] – Central Okanagan BC
A Fibonacci Solution — Mitigating Landslides and Avalanches
-
- Jacob Bowman** [16] – Peterborough ON
Effects of road salt on brook trout and aquatic invertebrates in Harper Creek
-
- Milo Eirew** [14] – Greater Vancouver BC
Cardio Cardigan - A lifesaving robotic wearable to provide mobility & CPR
-
- Riya Gandhi** [14] – Vancouver Island BC
A Cure for What 'Ails' You: A Study of the Antibacterial Effects of Garlic
-
- Ray Hao** [15] – Ottawa ON
Radon: Silent but Deadly
-
- Amanda Hardman** [16] – 4-H Canada AB
Crickets for Lunch — Turning Waste into Protein
-
- Fawzan Hussain** [16] – South Fraser BC
Use of EEGs to Analyze Student Attention during Math Assessment
-
- Aidan James** [14] – Halifax NS
Migratory Confusion in Leatherback Sea Turtles
-
- Krish Joshi** [15] – Bay Area ON
Tackling Pseudomonas Biofilm Resistance: Using Bacteriophage-Phenolics Synergy
-
- Guntaas Kaur** [14] – Peel ON
Discovering the Mechanism of Edelfosine, an Anticancer drug, Using α -Tocopherol
-
- Patricia Kelly** [15] – River Valley NB
bSEMA: A Novel Approach to Pre-Determining Seismic Activity
-
- Daniel Kornylo** [14] – Northern Vancouver Island BC
Light Orchestrator Part 1
-
- Kasia Kowalski** [14] – South Shore NS
Mycoremediation: One Way Fungi Can Save the World
-
- Neleah Lavoie** [14] – 4-H Canada PE
Cost-Effective Extraction of Chitin and Chitosan from Lobster Shells
-
- Aaron Lee** [14] – Greater Vancouver BC
Bunny Business
-
- Laurence Liang** [16] – Montréal RM QC
Le cerveau en algorithme
-
- Jonathon Macmillan** [16] – Chignecto West NS
Supercharged Salad
-
- Ainsley Horton** [15], **Kate MacMillan** [15] – Central Okanagan BC
Pitting Against Artificial Preservatives
-
- Monica Mahut** [15] – Bay Area ON
WATS UP: Water Activated Transportation System Uplifting Physics

Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



Cameron McMillan [16] – Prairie Valley SK
Trainium

Adam Patton [14] – Cariboo Mainline BC
The Power of Water: Finding Alternative Electrodes for Hydrogen Production

Maude Landry [15], **Sarah Pelletier** [15] – Districts francophones du Nouveau-Brunswick NB
Les effets du stress sur les plants de piments habanero

Victoria Devine-Ducharme [14], **Zoey Phillips** [15] – Ottawa ON
Aerobiology: The New and Innovative Way to Solve the Pollen Epidemic

Angie Redford [16] – Sunset Country ON
Fidget Spinners: A Charged Topic

Kavin Satheeskumar [15] – Thames Valley ON
Blown Away

Sasha Seufert [16] – Waterloo-Wellington ON
Delivering of DNA to Tardigrades via Nematocysts

Sana Shams [15] – South Fraser BC
Radioactivity vs. Fashion

Syni Solanki [14] – Peel ON
Analyzing Therapeutic Effect of B.bacterium & L.bacillus on Ovarian Cancer Cells

Michelle Song [15] – Annapolis Valley NS
The Use of Yeast to Prevent Fungal Diseases in Horticultural Produce

Shaelagh Stephan [15] – Saskatoon SK
Plant Waste to Biodegradable Bioplastics

Lara Stewart [15], **Liesl Stewart** [15] – 4-H Canada AB
Biosecurity Disinfectant Efficacy

Tyler Sun [15], **Peter Zhu** [15] – River Valley NB
COMET: A Novel Training Method to Optimize Robustness in Myoelectric Control

Norah Trinh [14] – Lethbridge AB
Reuse, Reduce, Reprint

Catalina van der Raadt [14] – Calgary Youth AB
Soft Pneumatic Robot

Jessica Yemen [14] – Renfrew County ON
So-Dis is Water Treatment

Emily Zbaraschuk [15] – Prince Albert & Northeast Saskatchewan SK
The Effects of Copper, Humic Acid and Fungicide on Fusarium Head Blight in Wheat

Excellence Award - Junior

Bronze Medal

Sponsor: Youth Science Canada
Medal and certificate

Nain Abdi [14] – Toronto ON
Don't Stress, Take a Breath

William Ahern [14] – Annapolis Valley NS
Fruit Flies Away

Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



Kira Allen [13] – Frontenac, Lennox & Addington ON
Who are you calling Bird Brain? Chickens may be smarter than you think!

Janani Anandan [13] – Peel ON
iMonitor: A Novel Device to Detect Diabetic Peripheral Neuropathy

Shaaf Babar [13] – Wood Buffalo AB
Smart Escape: A Dijkstra-Based Algorithm for Shortest-Safe Exit

Sameer Batla [13] – St. James-Assiniboia MB
Coping With Diabetes

Kalie Bennett [12] – Yukon/Stikine YT
Coloured Overlays: A Dyslexic's Friend?

Maxim Charbonneau [13] – Rive-Nord QC
Nom d'une patate!

Willa Crowley [13] – Central Interior British Columbia BC
Ungulate and Canid Interactions at a Mineral Lick

Catherine Diyakonov [13] – Greater Vancouver BC
Power Powder

Vera Antunes [13], **Brooke Donnelly** [12] – Algoma Rotary ON
Let It Snow?

Abby Falkenham [13] – Halifax NS
Road Safety: A Pedestrian Perspective

Jaime Fletcher [14] – Renfrew County ON
Sights Unseen: Investigating the Phenomenon of Inattentive Blindness

Holden Ford [13] – Waterloo-Wellington ON
Go Green or No Green?

Owen Gariepy [14] – Simcoe County ON
Fish, Feces and Flora: Aquaponics vs. Hydroponics vs. Agriculture

Marc-Antoine Gobeil [13] – Mauricie, Centre-du-Québec QC
Oxymétrie oculaire : innover!

Emily Goodson [14] – Simcoe County ON
Filtration of Smog

Neha Gupta [13] – Bay Area ON
Using Catalysts to Increase Water Splitting Efficiency in a Homemade Fuel Cell

Sophie Healey [13] – Rideau-St. Lawrence ON
Do You Move Time?

Margaret Kirke [13] – Ottawa ON
A Gift from the Sea: Soothing Eczema with Seaweed

Stefanie Mahut [13] – Bay Area ON
TWEET: Torsionally Whirling Environmentally Esthetic Turbine

Connor McCourt [13] – Bay Area ON
Pee-Tricity: Generating Electricity from Urine using Microbial Fuel Cells

Henley Mullins [13] – Eastern Newfoundland NL
Rockets are Such a Drag

Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



Finley Nakatsu [13] – Halifax NS

Dragging on — The Effect of Length, Surface Coating and Stern Angle on Drag

Ayana Nanthakumar [14] – Peel ON

Developing The Electrocardiogram as a Unique Biometric Identifier

Emilia Oliver [13] – Timmins ON

Don't Throw it Away Yet: Using food waste to remove arsenic from water

Hayden Persad [14] – West Kootenay & Boundary BC

Food Waste: The Solution to Our Plastic Problem

Ella Pilot [12] – Northwestern Ontario ON

A Study of the Prevalence of Gram-Negative Bacteria in School Soil

David Popa [14] – Calgary Youth AB

Applying User-Centred Design to Educational Math Games

Bruce Porter [13] – Yukon/Stikine YT

South Paw — Examining Paw Preference in Dogs and Connections to Human

Madighan Ryan [13] – Ottawa QC

Novel Myotonic Dystrophy Type 1 Drug Treatment

Anthony Saturnino [12] – Bay Area ON

HCDPS — Hot Car Death Prevention System

Monis Sayyid [13], **Jack Sloan** [14] – Rideau-St. Lawrence ON

Germination Determination

Neila Selouani [12] – Districts francophones du Nouveau-Brunswick NB

SNAP 29 : un nouveau test adapté pour détecter le TDAH

Cheryl Chen [13], **Stuti Sharma** [13] – South Fraser BC

Cede: A Novel Approach to Astronomical Profit

Kayli Taylor [14] – Northern British Columbia BC

Hydroseeding: Plant regrowth help for logging blocks where wood chips are used

Nikki van Schaik [13] – Simcoe County ON

Restoring the Reefs

Brooklynn Watson [13] – Northern Vancouver Island BC

Genome Engineering Technologies

Tess Wellington [13] – Pacific Northwest BC

Here's the Buzz About Bee Houses

Chloe Williston [12] – Pacific Northwest BC

Nature: who knows, who cares?

Gold Medal - International

Sponsor: Youth Science Canada

Medal and certificate

Thipok Bovornratanaraks [13], **Teepop Sutthipisal** [13] – Thailand

Energy Conversion System for Traveller (ECoST)

Wei-Ching Chen [16] – Taiwan, R.O.C.

A Wearable Mild Traumatic Head Injury Warning Device for Daily Activities

Carlos Arturo Hernandez Gomez [17], **Angel Antonio Sanchez Medina** [17] – Mexico

Identification & Narration System of the Environment (INSE)

Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



Andaman Lekawat [18], Sarawut Siracosit [18] – Thailand
Reversible Switching Electrical Pathway using Thermoresponsive-Recycled Polymer

Tung-Yu Wu [17], Yan-Chen Yeh [16] – Taiwan, R.O.C.
Neural Network Optimization Using Modified Gradient

Challenge Award - Resources

Senior

Sponsor: Youth Science Canada
Certificate

Jason Chen [17] – Greater Vancouver BC
Value-added Phytochemical Cocktail from Inedible Dragon Fruit Peel

Challenge Award - Resources

Intermediate

Sponsor: Youth Science Canada
Certificate

Janani Venkat [14] – Halifax NS
Effect of Chitosan on Plants under Abiotic and Biotic Stress

Challenge Award - Resources

Junior

Sponsor: Youth Science Canada
Certificate

Monis Sayyid [13], Jack Sloan [14] – Rideau-St. Lawrence ON
Germination Determination

Challenge Award - Innovation

Senior

Sponsor: Youth Science Canada
Certificate

Nicolas Fedrigo [17] – Vancouver Island BC
Spinal Fusions: Redesigning the Pedicle Probe to Prevent Vertebral Breaches

Challenge Award - Innovation

Intermediate

Sponsor: Youth Science Canada
Certificate

Brendon Matusch [14] – Sudbury ON
Development of an Autonomous Vehicle Using Machine Learning

Challenge Award - Innovation

Junior

Sponsor: Youth Science Canada
Certificate

Mac Dykeman [12] – 4-H Canada BC
Safer Chick-Ments: An Innovative Solution to Reducing Stress in Chick Shipments

Challenge Award - Information

Senior

Sponsor: Youth Science Canada
Certificate

Zachary Treffer [17] – Waterloo-Wellington ON
VoiceShield: Teaching Computers to Distinguish Real Data From Fake

Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



Challenge Award - Information

Intermediate

Sponsor: Youth Science Canada
Certificate

Krish Shah [14] – Wood Buffalo AB
H.A.L.O.: Heart Ability LOG and Operator

Challenge Award - Information

Junior

Sponsor: Youth Science Canada
Certificate

Shaaf Babar [13] – Wood Buffalo AB
Smart Escape: A Dijkstra-Based Algorithm for Shortest-Safe Exit

Challenge Award - Health

Senior

Sponsor: Youth Science Canada
Certificate

Eli Wood [18] – Tri-County NS
Stimulation of the Vagus Nerve Through Targeted Temperature Therapy 2.0

Challenge Award - Health

Intermediate

Sponsor: Youth Science Canada
Certificate

Jana Steyn [15] – Cariboo Mainline BC
Between The Q & T

Challenge Award - Health

Junior

Sponsor: Youth Science Canada
Certificate

Kerry Yang [13] – Sudbury ON
Fighting Heavy Metals-Induced Antibiotic Resistance: Dandelion Is the Key

Challenge Award - Environment

Senior

Sponsor: Youth Science Canada
Certificate

Jackson Weir [18] – Fundy NB
Experimental Analysis of Environmental Factors: Surface Spread of Oil on Water

Challenge Award - Environment

Intermediate

Sponsor: Youth Science Canada
Certificate

Adam Martinez [16] – Waterloo-Wellington ON
An Engineered Biosensor for Detecting and Quantifying Silver & Copper Ions

Challenge Award - Environment

Junior

Sponsor: Youth Science Canada
Certificate

Kailas Chari [13] – Bay Area ON
Freezing Point Depression of Salt Solutions: Finding the best De-Icing Compound

Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



Challenge Award - Energy

Senior

Sponsor: Youth Science Canada
Certificate

Kenz Zaghbi [19] – Montréal RM QC

Nouvelle approche vers la synthèse de nanocatalyseurs pour la production d'H₂

Challenge Award - Energy

Intermediate

Sponsor: Youth Science Canada
Certificate

Adam Patton [14] – Cariboo Mainline BC

The Power of Water: Finding Alternative Electrodes for Hydrogen Production

Challenge Award - Energy

Junior

Sponsor: Youth Science Canada
Certificate

Jodh Singh Nahal [14] – Cariboo Mainline BC

Generate Bioenergy & Simultaneously Treat Wastewater with MFCs: A Novel

Challenge Award - Discovery

Senior

Sponsor: Youth Science Canada
Certificate

Nikko-Johan Lee [17] – Calgary Youth AB

A Novel Strategy for Preferential Killing of Breast Cancer Cells

Challenge Award - Discovery

Intermediate

Sponsor: Youth Science Canada
Certificate

Susan MacInnis [16] – Cape Breton NS

Accuracy of Eyewitness Testimony

Challenge Award - Discovery

Junior

Sponsor: Youth Science Canada
Certificate

Madhumita Chandrasekaran [13] – Manitoba Schools Science Symposium MB

A Novel Approach to Efficiently Recycle Used Diapers in Optimizing Plant Growth

Youth Can Innovate Awards

Senior

Sponsor: The Gwyn Morgan and Patricia Trottier Foundation

Eight projects each receive \$1,000 cash, a presentation award and a certificate. Four of these winners also receive an additional \$7,000 cash award and certificate.

Aaron Varughese Abraham [16] – Calgary Youth AB

Predicting Alzheimer's via L-arginine Metabolites and Ensemble Machine Learning

Amal Aziz [16] – Thames Valley ON

A Switchable, Dual-Functioning Trojan Horse for Alzheimer's Disease Phototherapy

Adrien Jabir Bouhtiauy [17] – Districts francophones du Nouveau-Brunswick NB

Commotions cérébrales non détectées... maintenant chose du passé !

Award Recipients

Canada-Wide Science Fair 2018 Ottawa, Ontario



Gabriel Dayan [19] – Montreal QC

An Immune Response to ALL

Jonathan Lévesque [17] – Québec et Chaudière-Appalaches QC

QualyL : le cœur robotique

Wilfred Mason [19] – Montreal QC

Self-Assembling Bio-Photocells

Nick Murray [17] – Greater Vancouver BC

Low-Cost, Point-of-Care Skin Cancer Detection

Eli Wood [18] – Tri-County NS

Stimulation of the Vagus Nerve Through Targeted Temperature Therapy 2.0

Youth Can Innovate Awards

Senior

Sponsor: The Gwyn Morgan and Patricia Trottier Foundation

Eight projects each receive \$1,000 cash, a presentation award and a certificate. Four of these winners also receive an additional \$7,000 cash award and certificate.

Adrien Jabir Bouhtiauy [17] – Districts francophones du Nouveau-Brunswick NB

Commotions cérébrales non détectées... maintenant chose du passé !

Jonathan Lévesque [17] – Québec et Chaudière-Appalaches QC

QualyL : le cœur robotique

Nick Murray [17] – Greater Vancouver BC

Low-Cost, Point-of-Care Skin Cancer Detection

Eli Wood [18] – Tri-County NS

Stimulation of the Vagus Nerve Through Targeted Temperature Therapy 2.0

Youth Can Innovate Awards

Intermediate

Sponsor: The Gwyn Morgan and Patricia Trottier Foundation

Four projects each receive \$750 cash, a presentation award and a certificate

Mira Bhattacharya [14] – York ON

Natural Polymers and Absorption

Brendon Matusch [14] – Sudbury ON

Development of an Autonomous Vehicle Using Machine Learning

Albert Nitu [15] – Ottawa ON

A Novel DNazyme-based Colorimetric Assay for Early Disease Diagnostics under \$10

Harry Parmar [14] – York ON

SYN-VIOLA: The Power of Novel, Designer Bacteria in Real World

Youth Can Innovate Awards

Junior

Sponsor: The Gwyn Morgan and Patricia Trottier Foundation

Four projects each receive \$500 cash, a presentation award and a certificate

Bryn Bain [12] – Frontenac, Lennox & Addington ON

UV-C Light to Prevent Microbes from Taking Flight

Mac Dykeman [12] – 4-H Canada BC

Safer Chick-Ments: An Innovative Solution to Reducing Stress in Chick Shipments

Christopher Lamont [12] – Bay Area ON

Use of Technology to Reduce Medical Complications: Development of a Smart Cast

Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



Simran Singh [13] – Ottawa ON

The Development of a Novel Diagnostic Method for Parkinson's Disease

York University STEM Entrepreneur Bootcamp Scholarship Awards

Open

Sponsor: York University, Lassonde School of Engineering

Full scholarship to participate in the Youth Science Canada/York University STEM Entrepreneur Bootcamp in Toronto in August, including travel expenses up to \$1,000. The weeklong program is based on the award-winning Bergeron Entrepreneurs in Science and Technology (BEST) experiential learning approach, which combines the technical skills of building a new venture with creative problem-solving skills and personal reflection. Participants interact with successful entrepreneurs and leading academics from the Lassonde School of Engineering, Osgoode Hall Law School and the Schulich School of Business, as well as staff and ventures from the BEST lab. Total value \$2,500.

Adrien Jabir Bouhtiauy [17] – Districts francophones du Nouveau-Brunswick NB

Commotions cérébrales non détectées... maintenant chose du passé !

Nick Murray [17] – Greater Vancouver BC

Low-Cost, Point-of-Care Skin Cancer Detection

University of Toronto Engineering Award

Senior

Sponsor: University of Toronto,

An outstanding project by an individual Grade 11 student that is related to engineering - demonstrating an innovative, creative and well-tested solution to a real world problem.

Nicolas Fedrigo [17] – Vancouver Island BC

Spinal Fusions: Redesigning the Pedicle Probe to Prevent Vertebral Breaches

University of Ottawa Undergraduate Research Scholarship Award

Senior

Sponsor: University of Ottawa, Faculty of Science

The recipient will work with scientists and take part in important scientific discoveries during two consecutive summers. In the summer preceding the first year of studies in an undergraduate program at the Faculty of Science, University of Ottawa, the recipient will earn \$3,750 as a research assistant to one of the world class professors. By succeeding in the first year of studies, the research experience will be extended to a second summer, during which he/she will earn \$6,250.

Ahmad Ali [16] – Windsor ON

SignSMART: Glove Translates ASL Fingerspelling into Text and Speech

Statistical Society of Canada and Biostatistics Section Award

Intermediate

Sponsor: Statistical Society of Canada and Biostatistics Section
\$750 cash and certificate

Maddie Dick [14] – Toronto ON

Driving While Intechxicated: Does Technology Affect Reaction Time?

Statistical Society of Canada Award

Senior

Sponsor: Statistical Society of Canada
\$1,000 cash and certificate

Aaron Varughese Abraham [16] – Calgary Youth AB

Predicting Alzheimer's via L-arginine Metabolites and Ensemble Machine Learnin

Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



SHAD Scholarship Awards

Intermediate

Sponsor: SHAD

Each year, SHAD provides the opportunity for 750+ students from across Canada and internationally to attend a month-long summer program, in residence at a Canadian host university, focused on STEAM (science, technology, engineering, arts, and mathematics).

Kaylin Tayler Harder [14] – Beaufort-Delta NT

What are the variables that affect Afterimages?

Jodi Myszczyzyn [16] – Northwest Saskatchewan SK

Piping Hot Air

S.M. Blair Family Foundation Award

Senior

Sponsor: S.M. Blair Family Foundation

\$1,000 cash and certificate

Connie Cheng [18] – Waterloo-Wellington ON

A Novel Kidney-Mimicking Microfluidic Device for Hemodialysis

S.M. Blair Family Foundation Award

Intermediate

Sponsor: S.M. Blair Family Foundation

\$750 cash and certificate

Albert Nitu [15] – Ottawa ON

A Novel DNAzyme-based Colorimetric Assay for Early Disease Diagnostics under \$10

S.M. Blair Family Foundation Award

Junior

Sponsor: S.M. Blair Family Foundation

\$500 cash and certificate

Shail Giroux [13] – Algoma Rotary ON

GGATS: GPS Guided Autonomous Transport System

Renewable Energy Award

Senior

Sponsor: Ontario Power Generation

\$1,000 cash and certificate

Emmy Tremblay [17] – Saguenay-Lac Saint-Jean QC

Embarquez... l'avenir s'envole

Renewable Energy Award

Intermediate

Sponsor: Ontario Power Generation

\$750 cash and certificate

Jordan Kurtzweg [15] – Southeast Alberta AB

Turbines — It's a Wind Win

Renewable Energy Award

Junior

Sponsor: Ontario Power Generation

\$500 cash and certificate

Maxim Charbonneau [13] – Rive-Nord QC

Nom d'une patate!

Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



Nutrients for Life Foundation Award

Senior

Sponsor: Nutrients for Life Foundation Canada
\$1,000 cash and certificate

Kamron Zaidi [16], Sabrina Zaidi [16] – York ON
The Effect of Surface Tension on Plant Growth in Fogponics

International Summer School for Young Physicists Award

Senior

Sponsor: Perimeter Institute for Theoretical Physics
The award consists of a full scholarship to participate in the International Summer School for Young Physicists 2018 (ISSYP 2018) from July 15-28, an intensive two week enrichment program that will introduce the student to the fascinating picture of our universe as seen through the eyes of contemporary physicists: from the bizarre quantum world of atoms and subatomic particles to black holes, warped spacetime and the expanding universe. The student will also interact with professional physicists at Perimeter Institute in small group mentoring sessions, participate in field trips to leading experimental science laboratories, and forge new friendships with like minded young people from around the world. The scholarship includes room and board and travel expenses to and from the Institute. Total value \$3,500.

Ozan Ürkmez [17] – Strait NS
Delve Into Dimensions

Intact Climate Change Resilience Award

Senior

Sponsor: Intact Financial Corporation
\$1,000 cash and certificate plus an all-expenses paid trip to Waterloo, Ontario during summer 2018 to visit the Intact Centre on Climate Adaptation at the University of Waterloo, Canada's leading research centre on climate change resilience.

Raul Pinol Pascual [15] – Fraser Valley BC
Geothermal Power Plant Producing Water by Condensation

Intact Climate Change Resilience Award

Intermediate

Sponsor: Intact Financial Corporation
\$750 cash and certificate

Teryl Bates [15] – Central Okanagan BC
A Fibonacci Solution — Mitigating Landslides and Avalanches

Intact Climate Change Resilience Award

Junior

Sponsor: Intact Financial Corporation
\$500 cash and certificate

Julia Bell [14], Mia Eleid [13] – Peel ON
B.E. Green: Garbage Removal Design

4-H Canada Sustainable Agriculture Award

Junior

Sponsor: 4-H Canada
\$500 cash and certificate

Dheiksha Jayasankar [13] – Niagara ON
NanoAOX: Localization of Antioxidants via Nanoparticles to Enhance Plant Growth

Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



4-H Canada Food Security Award

Junior

Sponsor: 4-H Canada
\$500 cash and certificate

Dheiksha Jayasankar [13] – Niagara ON

NanoAOX: Localization of Antioxidants via Nanoparticles to Enhance Plant Growth

First Nations University of Canada Award

Junior

Sponsor: First Nations University of Canada
\$500 cash and certificate

McKenzie Cote [13], **Mercedes Cote** [12] – Aboriginal Québec Autochtone QC

Ishkode-Fire

Excellence in Astronomy Award

Junior

Sponsor: Royal Astronomical Society of Canada
Telescope and certificate plus a one year membership to RASC

Jarek Osika [14] – Northern Manitoba MB

Exploring 1420 MHz

Engineering Innovation Award

Intermediate

Sponsor: The Engineering Institute of Canada
\$750 cash and certificate

Kaitlyn Coen [16] – Peace Country AB

The C Trailer

Carlson Wagonlit Award

Junior

Sponsor: Carlson Wagonlit Travel
\$500 cash and certificate

Mac Dykeman [12] – 4-H Canada BC

Safer Chick-Ments: An Innovative Solution to Reducing Stress in Chick Shipments

CAP Physics Prize

Senior

Sponsor: Canadian Association of Physicists
\$1,000 cash and certificate.

Kenz Zaghbi [19] – Montréal RM QC

Nouvelle approche vers la synthèse de nanocatalyseurs pour la production d'H2

CAP Physics Prize

Intermediate

Sponsor: Canadian Association of Physicists
\$750 cash and certificate

Brent Charron [15] – Windsor ON

Conformable LEECs using Elastomeric Emissive Materials

CAP Physics Prize

Junior

Sponsor: Canadian Association of Physicists
\$500 cash and certificate

Henley Mullins [13] – Eastern Newfoundland NL

Rockets are Such a Drag

Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



Canadian Stockholm Junior Water Prize

Senior

Sponsor: Canadian WEF Member Associations, the Canadian Water and Wastewater Association, and Xylem
All-expenses paid trip to Stockholm, Sweden, August 25-30, 2018, for up to two student(s) of the winning project to represent Canada at the International Stockholm Junior Water Prize Competition (www.sjwp.ca).

Léo Lechaume-Robert [17] – Québec et Chaudière-Appalaches QC
Attaquer le 7e continent!

Mahnoz Akhtari [17], **Shawn Tanner** [17] – Windsor ON
Using Zebra Mussels as a Water Filtration Substrate

Holly Tetzlaff [17] – Peterborough ON
Disappearance ≠ Disintegration ~ The Environmental Impact of Pseudo Flushables

Canadian Society for Medical Laboratory Science Award

Intermediate

Sponsor: Canadian Society for Medical Laboratory Science
\$750 cash and certificate

Albert Nitu [15] – Ottawa ON
A Novel DNazyme-based Colorimetric Assay for Early Disease Diagnostics under \$10

Canadian Society for Clinical Chemists Award

Senior

Sponsor: Canadian Society for Clinical Chemists
\$1,000 cash and certificate

Matthew Zhou [16] – Thames Valley ON
From Brain to Heart: Complications following Insular Ischemic Stroke

Canadian Acoustical Association Award

Senior

Sponsor: Canadian Acoustical Association
\$1,000 cash and certificate plus subscription to the Canadian Acoustical Association's quarterly journal

Zachary Trefler [17] – Waterloo-Wellington ON
VoiceShield: Teaching Computers to Distinguish Real Data From Fake

The Actuarial Foundation of Canada Award

Senior

Sponsor: The Actuarial Foundation of Canada
\$1,000 cash and certificate

William Shen [18] – Greater Vancouver BC
Exploring the Genetic Basis of Dengue Virus Transmission

Yu Chen Shi [16], **Qiu Shi Wang** [17] – Montréal RM QC
Trop loin de l'école?

The Actuarial Foundation of Canada Award

Intermediate

Sponsor: The Actuarial Foundation of Canada
\$750 cash and certificate

Maddie Dick [14] – Toronto ON
Driving While Intechxicated: Does Technology Affect Reaction Time?

Jana Steyn [15] – Cariboo Mainline BC
Between The Q & T

Award Recipients

Canada-Wide Science Fair 2018

Ottawa, Ontario



The Actuarial Foundation of Canada Award

Junior

Sponsor: The Actuarial Foundation of Canada
\$500 cash and certificate

Madhumita Chandrasekaran [13] – Manitoba Schools Science Symposium MB
A Novel Approach to Efficiently Recycle Used Diapers in Optimizing Plant Growth

Harrison Cormier [14] – Greater Vancouver BC
Evaluating Stress Reduction Methods in Adolescents by Analyzing Key Bio Signals

European Union Contest for Young Scientists

Trip to EUCYS

Sponsor: The Gwyn Morgan and Patricia Trottier Foundation
An all-expenses paid trip to the European Union Contest for Young Scientists as a member of Team Canada-EUCYS in September.

Mac Dykeman [12] – 4-H Canada BC
Safer Chick-Ments: An Innovative Solution to Reducing Stress in Chick Shipments

Nicolas Fedrigo [17] – Vancouver Island BC
Spinal Fusions: Redesigning the Pedicle Probe to Prevent Vertebral Breaches

Brendon Matusch [14] – Sudbury ON
Development of an Autonomous Vehicle Using Machine Learning