

YRSTF 2025 AWARDS CEREMONY



YRSTF 2025 AWARDS CEREMONY

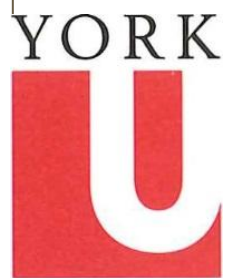


Land Acknowledgement

We recognize that the York Region Science and Technology Fair located on the lands of two treaties. These treaties have been signed with the Mississaugas of the Credit First Nation and the First Nations of the Williams Treaties who are: the Mississaugas of Alderville, Curve Lake, Hiawatha, Scugog Island; and the Chippewas of Beausoleil, Rama, and Georgina Island. To honour this agreement we will take up our responsibility to be respectful of their traditions, knowledge and inherent rights as sovereign nations. We will respect their relationship with these lands and recognize that our connection to this land is through the continued relationship with these First Nations, and we acknowledge our shared responsibility to respect and care for the land and waters for future generations.



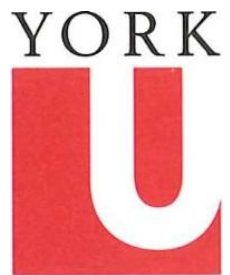
YRSTF 2025 AWARDS CEREMONY



Welcome and Introductions



YRSTF 2025 AWARDS CEREMONY





York Catholic District School Board

Catholic Education Centre, 320 Bloomington Road West, Aurora, Ontario L4G 0M1
Tel: 905-713-1211, 416-221-5051, 1-800-363-2711
Fax: 905-713-1272 • www.ycdsb.ca

March 25, 2025

On behalf of the York Catholic District School Board (YCDSB), we are happy to send our greetings to all those taking part in the 2025 York Region Science & Technology Fair.

Through Pathways and Experiential Learning, we hope to provide all YCDSB students with an opportunity to further explore Science and Technology. The YCDSB has a deep commitment to teaching and promoting science and technology. We have opened STREAM Centres of Excellence (Science, Technology, Religion, Engineering, Arts and Math) throughout our Board, so students can use state-of-the-art technology to develop innovative solutions to the world's most pressing issues.

It is always inspiring to see the creativity of students and to imagine the amazing world that the next generation will create. We applaud you for using your God-given talents for such important work. May today be an excellent opportunity to learn, to be inspired and to foster lifelong friendships.

Yours in Christ,

A handwritten signature in cursive script, reading "Elizabeth Crowe".

Elizabeth Crowe
Chair of the Board

A handwritten signature in cursive script, reading "John De Faveri".

John De Faveri
Director of Education, Foundation Chair
and Secretary of the Board

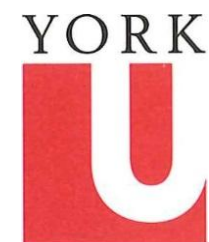


MESSAGE FROM THE DIRECTOR

YORK REGION SCIENCE AND TECHNOLOGY FAIR



YRSTF 2025 AWARDS CEREMONY



SPECIAL AWARDS



YRSTF 2025 AWARDS CEREMONY

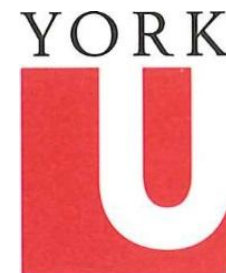


Special Invitation

In partnership with the City of Markham, projects by Markham students have been selected to represent YRSTF at the Markham Youth Science Exhibition on April 26th, 2025.



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Special Invitation

**1203 - Revolutionizing Mars: A CAD creation of a
Self Sustaining Renewable energy Habitat**

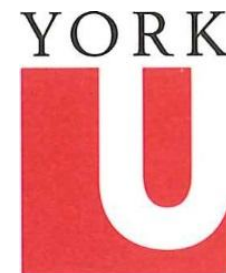
Shreya Poguluru

**2301 - Exploring the Potential of Biodegradable
Gum**

Raha Amini & Laura Mak



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Special Invitation

3201 - Kinetic Kruiser: Introducing mechanical advantage to minimize energy consumptions of roller coasters

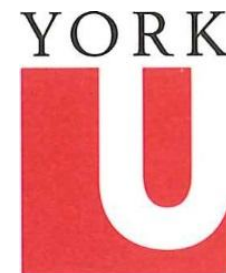
Justin Enze Cao & Daniel Ding

3301 - Snowy Sun-Signs: Solar-powered, self-heating road signs

Natalie Ko & Nicole Li



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Special Invitation

4106 - Determining Natural Disasters in the GTA Using Chaos Theory

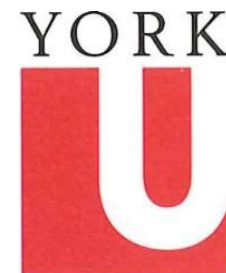
Ryan Lee & Haygen Li

4304 - EcoBot

Sughosh Desai & Preetham Natarajan



YIRSTF 2025 AWARDS CEREMONY



Special Invitation

6102 - Sun Power Showdown

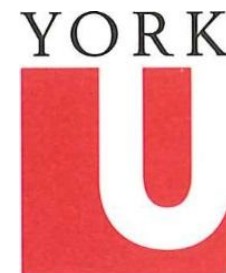
Brad Lee & Sidney Wong

6302 - Piezo-Power: Using sound-powered batteries to monitor air quality.

Sophie Benedete & Lara Joshi



YIRSTF 2025 AWARDS CEREMONY



Special Invitation

7202 - SkyLight

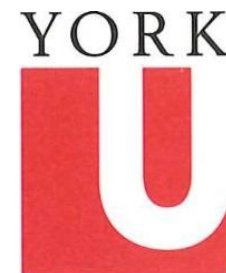
Zoe Nicole Tan & Anoth Wang

7301 - The ChitoBloom: A Sustainable Microalgae Filtration System Using Chitosan Flocculation

Celine Fu & Rachel Lee



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EcoSpark Environmental Award

Presented to an outstanding project that addresses an environmental issue in any category whose findings have the potential to engage everyday community members in making a difference for the environment.



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EcoSpark Environmental Award

4304 - EcoBot

Sughosh Desai & Preetham Natarajan



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Canadian
Meteorological and
Oceanographic Society

La Société Canadienne
de Météorologie et
d'Océanographie

Canadian Meteorological and Oceanographic Society Award

This prize will be given to the best project in Meteorological and Oceanographic Sciences. This includes projects in weather, air quality, climate, climate change and the oceans.



YRSTF 2025 AWARDS CEREMONY





Canadian
Meteorological and
Oceanographic Society

La Société Canadienne
de Météorologie et
d'Océanographie

Canadian Meteorological and Oceanographic Society Award

\$150 1st place

**7103 - Reviving Coral Reefs: Genetic
Innovations to Combat Climate Change**

Candace Hon



YRSTF 2025 AWARDS CEREMONY





Canadian
Meteorological and
Oceanographic Society

La Société Canadienne
de Météorologie et
d'Océanographie

Canadian Meteorological and Oceanographic Society Award

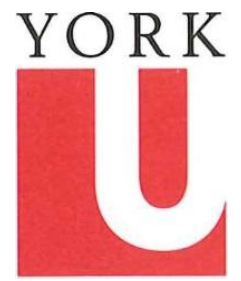
\$75.00 2nd place

**7106 - If asterina starfish could
adapt to salinity level changes**

Anna Tumanov



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EVGENY ROSEN
Real Estate Broker
416.888.4267 CELLTEXT
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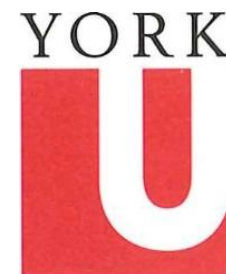
The Home Innovation Award

Sponsored by Evgeny Rosen

The \$50 "Home Innovation Award" is presented to a project that best demonstrates innovation in the area of home improvements and/or the development of sustainable homes.



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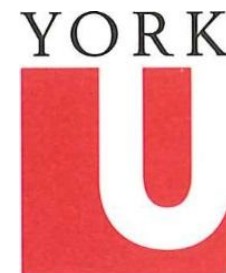
The Home Innovation Award

Sponsored by Evgeny Rosen

**8102 - Paw Patrol: Litter Box
Detector**
Ayana Daya



YIRSTF 2025 AWARDS CEREMONY





Vernadsky Award

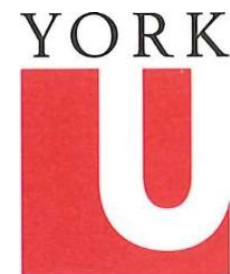
Awarded to a project that that reflects ideas that best support sustainable development.

In honour of Vladimir Ivan Vernadsky whose works have contributed to geology, geography, geosphere, biosphere and noosphere

\$ 100.00 Award



YRSTF 2025 AWARDS CEREMONY



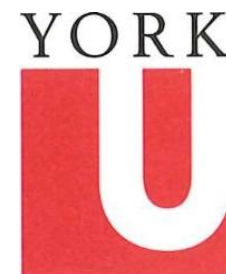


Vernadsky Award

**3301 - Snowy Sun-Signs:
Solar-powered, self-heating road signs**
Natalie Ko & Nicole Li



YIRSTF 2025 AWARDS CEREMONY





Dr. Ray Clement Environment Award

Awarded to a project judged to be the Best-in-Fair in the field of environmental science. The winning project demonstrates clarity and logic and was conducted according to the best principles of scientific investigation.

\$300 Award



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Dr. Ray Clement Environment Award

7101 - PrintCycle
Sean Ben Daniel



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The WEAO Award

This \$100 award will be awarded to a project focused on innovative ideas for preserving and/or enhancing the water environment in recognition that water is our most valuable resource that requires ongoing efforts to manage it in a responsible and sustainable manner.



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The WEAO Award

7201 - Breathing Easy: Reoxygenating Water in Practice

Cassia Stoodley



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Young Innovator's Award

This \$200.00 award is presented to an outstanding project that demonstrates innovative thinking.



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Young Innovator's Award

6103 - The Human Power Plant
Hashini Packiarajah



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Digital Technology Innovation Award

Awarded to a project that demonstrates an innovative use of digital technology to improve the lives of individuals



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Digital Technology Innovation Award

4203 - Sportiner: The Science of Social Sports Matching

Artin Mehri



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York University Science Explorations Camp Award

Awarded to a high performing junior student.
One week at summer camp.



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York University Science Explorations Camp Award

1101 - Novel Self-Healing Nanopolymer: The Future of Reusable Rocket Landing Pads

Karm Patel



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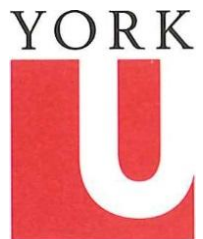


York University's Spark Lab Program

**3303 - Spin-Wave Voltage in Magnetic
Nanostructures and Neural Field Sensor
Application**
Catherine Sun



YRSTF 2025 AWARDS CEREMONY





YRSTF Communication and Presentation Award

Sponsored by **BEST
BUY.**

Awarded to a project with an outstanding oral presentation, online project board, and display board

\$ 100.00 Award



YRSTF 2025 AWARDS CEREMONY





YRSTF Communication and Presentation Award

Sponsored by **BEST
BUY**

**6302 - Piezo-Power: Using
sound-powered batteries to monitor
air quality.**

Sophie Benedete & Lara Joshi



YRSTF 2025 AWARDS CEREMONY





YRSTF Challenge Awards

Sponsored by **BEST BUY**

These \$100 awards are presented to the best project in each of the CWSF Challenge categories

\$100 Award



YRSTF 2025 AWARDS CEREMONY





YRSTF Challenge Award Aerospace

Sponsored by **BEST
BUY**

1101 - Novel Self-Healing Nanopolymer: The Future of Reusable Rocket Landing Pads

Karm Patel



YRSTF 2025 AWARDS CEREMONY





YRSTF Challenge Award Agriculture, Fisheries and Food Challenge

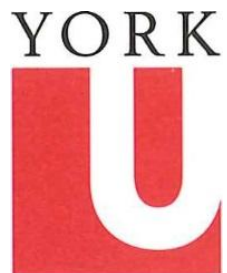
Sponsored by **BEST
BUY**

**2103 -The DriftDroid | The Robot That
Tackles Drift Netting**

Braydon Chow & Theodore Diplas



YRSTF 2025 AWARDS CEREMONY





YRSTF Challenge Award Curiosity and Ingenuity

Sponsored by **BEST
BUY**

**3303 - Spin-Wave Voltage in Magnetic
Nanostructures and Neural Field
Sensor Application**
Catherine Sun



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YRSTF Challenge Award Digital Technology

Sponsored by **BEST
BUY.**

**4204 - Fluctus - Using Digital Audio
Classification as a Modern Alternative to
Traditional Hearing Aids**
Tyler Zeng & Ethan Hon



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YRSTF Challenge Award Disease and Illness

Sponsored by **BEST
BUY.**

**5302 - Explainable Artificial Intelligence
to Diagnose Early Parkinson's Disease
via Voice Analysis**

Matthew Shen



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YIRSTF Challenge Award Energy

Sponsored by **BEST
BUY.**

6103 - The Human Power Plant
Hashini Packiarajah



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YRSTF Challenge Award Environment and Climate Change

Sponsored by **BEST
BUY**

7101 - PrintCycle
Sean Ben Daniel



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YRSTF Challenge Award Health and Wellness

Sponsored by **BEST
BUY.**

8102 - Paw Patrol: Litter Box Detector
Ayana Daya



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YRSTF Challenge Award Natural Resources

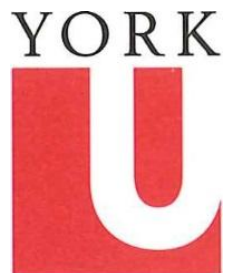
Sponsored by **BEST
BUY.**

**9301 - Graphic Printing with Charcoal:
Reducing Textile and Synthetic Waste
One Graphic at a Time**

Brian Huang



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Amino Labs Promising Biologist Award

**8103 - Hello Hydration - A Water
Cleansing Pill**
Aathitri Dileepan



YRSTF 2025 AWARDS CEREMONY





Amino Labs Promising Biologist Award

**7103 - Reviving Coral Reefs: Genetic
Innovations to Combat Climate Change**
Candace Hon



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Amino Labs Promising Biologist Award

5201 - DNA Eclipse: Stem Fair 2025

Owen Omoruyi



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Amino Labs Promising Biologist Award

**8101 - Battle of the Bottles: Which
Grows More Bacteria?**

Thalia Schertzer



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Cournoyea/Paz-Soldan Peer Award

Sponsored by **BEST
BUY.**

Awarded to the 'best project' as selected
by their peers

Named after the founding members of
YIRSTF

\$ 50.00 + Crystal Award



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Cournoyea/Paz-Soldan Peer Award

Sponsored by **BEST
BUY.**

**1101 - Novel Self-Healing
Nanopolymer: The Future of
Reusable Rocket Landing Pads**

Karm Patel



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OF THE**

**York Region
Science and Technology Fair**

**CONGRATULATIONS TO
ALL PARTICIPANTS &
WINNERS**



Bronze Medal Winners



YRSTF 2025 AWARDS CEREMONY





Bronze Medal Winners

2103 - The DriftDroid | The Robot That Tackles Drift Netting

Braydon Chow & Theodore Diplas

2104 - Revolutionizing Vertical Farming

Davin Cheng



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Bronze Medal Winners

2301 - Exploring the Potential of Biodegradable Gum

Raha Amini & Laura Mak

4106 - Determining Natural Disasters in the GTA Using Chaos Theory

Ryan Lee & Haygen Lin



YRSTF 2025 AWARDS CEREMONY





Bronze Medal Winners

8303 - ReScribble - Digital Writing Made Accessible

Eason Chen & Canrries Hong

6302 - Piezo-Power: Using sound-powered batteries to monitor air quality.

Sophie Benedete & Lara Joshi



YRSTF 2025 AWARDS CEREMONY





Bronze Medal Winners

7106 - If asterina starfish could adapt to salinity level changes

Anna Tumanov



YRSTF 2025 AWARDS CEREMONY





Bronze Medal Winners

**9201 - Respiratory Monitoring: Developing a User-Friendly
Arduino-Based Breathing Device**

Radin Gharavi

**9102 - The Plant's Favourite Drink - Reverse Osmosis Water or
Fish Water**

Martin Liu & Aidan Ha



YRSTF 2025 AWARDS CEREMONY



Silver Medal Winners



YRSTF 2025 AWARDS CEREMONY





Silver Medal Winners

1101 - Novel Self-Healing Nanopolymer: The Future of Reusable Rocket Landing Pads

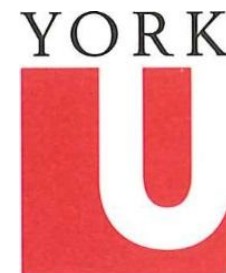
Karm Patel

3301- Snowy Sun-Signs: Solar-powered, self-heating road signs

Natalie Ko & Nicole Li



YRSTF 2025 AWARDS CEREMONY





Silver Medal Winners

4107 - Brainwave - Learning Made Easy

Aesha Mohan

4201 - Black Ice Detector

Emma Xu & Naomi Chan



YRSTF 2025 AWARDS CEREMONY





Silver Medal Winners

3303 - Spin-Wave Voltage in Magnetic Nanostructures and Neural Field Sensor Application

Catherine Sun

4202 - Reducing Carbon Emissions By Optimizing Traffic

Lucas Chan & Timothy Chan



YRSTF 2025 AWARDS CEREMONY





Silver Medal Winners

4205 - DeepSpaceFocus: Using Computer Vision to Help Users Concentrate on Tasks

Kyle Guo & Richard Liu

4306 - LifeLinkER

Areya Emmanuel-Singh & Mariya Vlasova



YRSTF 2025 AWARDS CEREMONY





Silver Medal Winners

6103 - The Human Power Plant

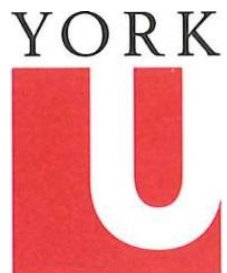
Hashini Packiarajah

7101 - PrintCycle

Sean Ben Daniel



YRSTF 2025 AWARDS CEREMONY





Silver Medal Winners

7103 - Reviving Coral Reefs: Genetic Innovations to Combat Climate Change

Candace Hon

7201 - Breathing Easy: Reoxygenating Water in Practice

Cassia Stoodley



YRSTF 2025 AWARDS CEREMONY





Silver Medal Winners

8102- Paw Patrol: Litter Box Detector

Ayana Daya

9032- Graphic Printing with Charcoal: Reducing Textile and Synthetic Waste One Graphic at a Time

Brian Huang



YRSTF 2025 AWARDS CEREMONY





Silver Medal Winners

**4302 - Equations from Data: Can Machine Learning
Rediscover Physics?**
Saahil Gopi Palamaner



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Gold Medal Winners



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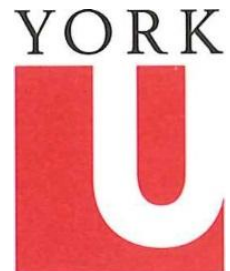
Gold Medal Winner Canada Wide Science Fair Finalist

**4204 - Fluctus - Using Digital Audio Classification as a Modern
Alternative to Traditional Hearing Aids**

Tyler Zeng & Ethan Hon



YRSTF 2025 AWARDS CEREMONY





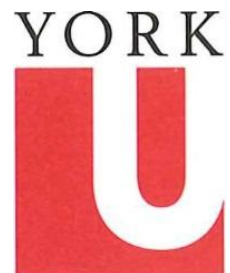
Gold Medal Winner Canada Wide Science Fair Finalist

**5302 - Explainable Artificial Intelligence to Diagnose Early
Parkinson's Disease via Voice Analysis**

Matthew Shen



YRSTF 2025 AWARDS CEREMONY





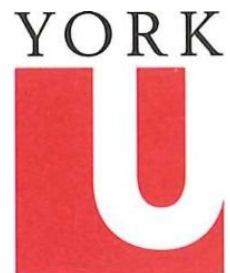
Gold Medal Winner Canada Wide Science Fair Finalist

**5306 - The IV Roller: A Simple Approach to Pain Management of
Phlebitis during PIVC Chemotherapy Infusion**

Aashna Karshan



YRSTF 2025 AWARDS CEREMONY





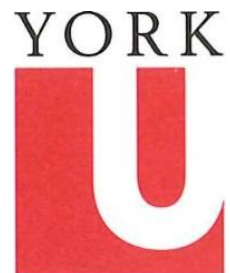
Gold Medal Winner Canada Wide Science Fair Finalist

**5304 - HARMONY: A Machine Learning-Based Adaptive Music
Neurostimulation Device for Pediatric Epilepsy**

Aashika Reddy



YRSTF 2025 AWARDS CEREMONY



University of Ottawa Entrance Scholarship



uOttawa

L'Université canadienne
Canada's university

Awarded to a top Senior project to encourage the winner(s) to pursue university studies in health, sciences or technology

A \$1,000 Scholarship to be applied to tuition fees when student(s) register in an undergraduate program in the Faculties of Engineering, Science, or Health Sciences



YRSTF 2025 AWARDS CEREMONY



University of Ottawa Entrance Scholarship



uOttawa

L'Université canadienne
Canada's university

5304 - HARMONY: A Machine Learning-Based Adaptive Music Neurostimulation Device for Pediatric Epilepsy

Aashika Reddy



YRSTF 2025 AWARDS CEREMONY



Carleton University Entrance Scholarship



Awarded to a top Senior project to encourage the winner(s) to pursue university studies in science or engineering.

A \$1,000 Scholarship to be applied to tuition fees when student(s) register in an undergraduate program in the Faculties of Engineering or Science



YRSTF 2025 AWARDS CEREMONY



Carleton University Entrance Scholarship

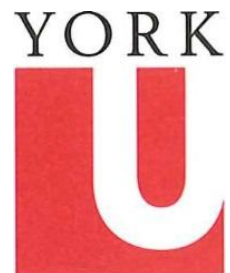


**5306 - The IV Roller: A Simple Approach to
Pain Management of Phlebitis during PIVC
Chemotherapy Infusion**

Aashna Karshan



YRSTF 2025 AWARDS CEREMONY



York University Admission Scholarship



Awarded to the top Senior project

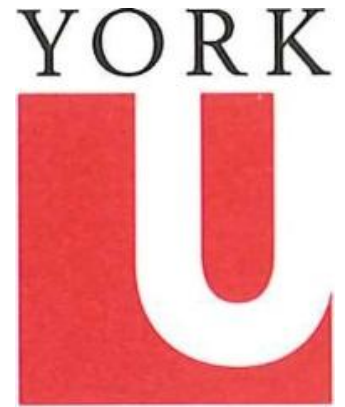
A \$2,000 Scholarship (\$1000/partner) to be applied to tuition fees when student(s) register in an undergraduate program at York University



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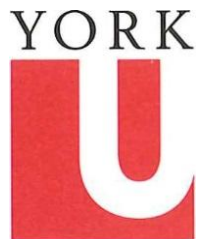
York University Admission Scholarship



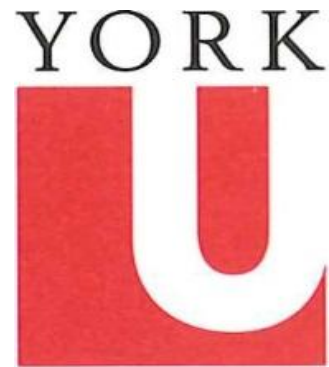
**5302 - Explainable Artificial Intelligence to
Diagnose Early Parkinson's Disease via Voice
Analysis**
Matthew Shen



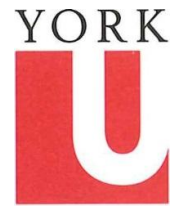
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Thank You



YRSTF Special Award Sponsors



Dr. Ray Clement

Graziella Sadler



Integran
Technologies Inc.



Door Prizes

ROM



THANK YOU!

- **Volunteers**
- **Judges**
- **Teachers**
- **Parents**
- **York University**
- **YRSTF supporters**

YRSTF 2024 Committee

The fair is a passion project for many of our committee members. Without them, we would not be here! Thank you!

A special Thank You to

Kim Hopper - Our Judging Coordinator

Michael Frankfort - Community Partnerships and Sponsorship

Dr. Ray Clement - Chief Judge

Dennis Stam - YRDSB Liaison

Germaine Falzone - YCDSB Liaison

Joe Ciccone - CWSF Chaperone and President

Vanessa Quidayan - Private School Liaison

and our volunteers: Jenn, Kim, Stuart, Sam, and students!