

# Pewter

Zainab Wasim  
Nakshatra Sujesh  
Ananth Arunkumar  
Mufarrid Saif-Ansari  
Emma Séguin, Madeline Jones  
Maria Mohamed, Maryam Aidaruse  
Eli Bergen  
Emilia Boido  
Rilyn Collee, Ruby McGregor  
Evan Keleher, Ezra Park  
Mia Middleton, Kinley Mendonca  
Lia Mizrahi, Leighton Clarke  
Mark-Nathaniel Eskander  
River Withers  
Carter Szpeflicki, Santiago Uribe  
Annabelle He  
Dora Guzel, Hannah Scovill  
Hamish McCaig  
Adam Ahmed, Anas Ahmed  
Alana Shi, Oliver Schorn  
Xaria Sookdeo  
James Puddle  
Annabelle Smith  
Savani Vaidya, Hannah Jiao  
Arjun Mahes  
William Trudel, Caleb Rothlisberger  
Yaseen Charif, Hashem Adeinat  
Yehia Saleh, Abdullah Hussain  
Arunya Agarwal, Nina Jbanova

Beyond The Algorithm: Protecting Data in an Era of Cyber Threats  
Weather Sensitive Clothesline  
Efficiency of Variable Profile Aircraft Wings  
Blood Monitoring for Health Regulation and Issue Detection  
Water pollution sac!  
Examining Bacteria in Action  
The Effects Of Music On Cognitive Functions  
Learning Techniques  
The Mandela Effect  
Can Bamboo Save Our Planet  
Cutting Board Clash  
Stress  
Daltonisme  
Sugar Rush or Memory Crash?  
Salty Alternatives  
Salt Water's Effect on Climate  
Which Heat Protector is Better  
What Makes A Wind Turbine Efficient?  
No Drain to Sustain  
Sports Drinks: Do They Really Damage Your Teeth?  
Unraveling the Mystery of Red Shifting in Space  
The Great Loyly Debate  
Chlorinated Pool Water vs. Human Hair  
H<sub>2</sub>-Oh No! How pH Affects Water Quality  
The rate of degradation of a plastic bead  
Gantry Printer  
Buzz Budd  
AI Sense: Imagine the unseen  
Filtering Out PFAs and Microplastics

# Bronze

Johan Joseph Mathai  
Kevin Payne  
Gabrielle Wong  
Goldy Yan, Alex Almazan  
Olivia Guo, Le Anne Du  
Jeevan Sehra  
Gursaaz Gund  
Kalli-Ann Sevaptisidid  
Amir Sayad  
Nathan Schiedel  
Shelby Yuzefowich-Ross  
Darsh Dharani Kumar  
Norah Watt  
Zachary Chung  
Zoya Ahmed

MicroWatt: Power Consumption of Algorithms on a Custom Processor  
Gravity Battery  
Seeing Sound with AI: Non-line of Sight Acoustic Fire Detection  
Physical to Virtual Interaction through Infrared and Tensorflow  
Another One Bites the Crust: Chews Wisely  
Smartphone-Based Gait Analysis Sys. for Detection of Neurologica  
From Hulk to High Voltage: Making Radiation Work for Us  
ProxiVision: Smart Glasses for the Visually Impaired  
Addiction to TikTok  
Is Synesthesia Cheating At Life?  
The Five Second Rule  
Study on the Biological Difference in Visual Bacterial Growth  
Growing Plants on Mars  
Exploring Longevity: The Ingredients for a Long Life  
Martian Gardens: The Future Of Clean Air In Space Habitats

Niharika Bawa, Kristen Duong  
Emily Pavlin  
Tiffany Tofan, Niyatee Patel  
Charlie Phillips, Hayden Huang  
Yousuf Khan  
Dexter Metzger  
Ethan Lokody  
Lily Zoretic  
Tyson Bester, Ryan Chang  
Kush Modi  
Sam Bergsieker  
Petra Bransonroach  
Abigail Lin, Eleanor Jeavons

Brainwaves of Colour  
The Effects of Background Music on Working Memory  
Bready or Not: Here Comes the Mould  
Faster or Failure: The Effect of Speed with Secondary Forces  
Disinfect to Protect  
Rusty Mayhem  
Comparing Water Hardness: Soap Bubble Height Analysis  
Sunscreen Showdown  
Artificial Intelligence Stock Analysis  
Investigating the Mpemba Effect  
Newtonian Physics and Collisions  
To The Bone  
Going Downhill: How Slope Affects Speed and Distance

## Silver

Bikram Singh  
Aanya Mendapara  
Sammy Hawari  
Laisha Soni  
Moiz Hussain  
Zoya Imran  
Maggie Shen  
Manaal Sohail  
Chisato Yamaguchi  
Anum Dasoo  
Max Winter  
Inaaya Imran  
Kashvi Bansal, Noella Zhao  
Oliver Backer  
Lisa Borzov  
Maya Kidron  
Lindsay Jiang  
Priyanshi Dokania  
Vanessa Bal  
Azra Budak, Summer Maloor  
Shreyash Umamaheswaran, Loyd Gebreselassie  
Vaidik Shingala  
Iva Liu, Ivy Liu  
Ziyi Ye, Aishee Roychowdhury  
Simar Singh, James Zhao  
Maximilian Wong, Kevin Tong  
Arya Khan  
Grady Watson, Logan Willard  
Cooper Mitchell  
Ella Taaffe, Maia Zwingli-Arce  
Zaara Mahmud  
Maia Montanaro

Visionary : "A Multi Disease Diagnostic System for Eye Health "  
ThyroML  
Iron Guardian: An Algorithm Keeping Children Safe Online  
Diabetic Retinopathy Detection  
Predicting Thyroid Cancer Recurrence Using Machine Learning  
Code for a Cure: Can AI Diagnose Breast Cancer?  
Detecting Parkinson's through Voice Dysfunctions  
WaveSaver: The Self-Sustaining Ocean Cleaner  
Do Different Fonts Affect People's Trust?  
MBTI: Minds, Behaviour, Traits, and Identity  
Regional Differences In Birdsong  
The Trust Dilemma: Do people trust AI more than Humans?  
The Effects Of Music, Stress, and Exercise On Memory  
Catgrass: the Ideal Conditions for Growing  
The Life of Coral Reefs  
How Does Word Placement in a List Affect Memory Recall?  
E.coli's Silver Lining  
Can Nutrition Influence Gut Microbiota to Mitigate PCOS Symptoms  
Distrust in Doses: How Vaccine Information Alters Perception  
Ashwagandha on Alpha Synuclein Aggregation in PD Patients  
PhytoLume: A Light Source & Bioindicator  
Tissue Regeneration Using Magnetic Fields  
Do Plants Need Rest?  
A Novel Implant Design Approach Using Chitosan-Based Hydrogels  
How Can We Make Windmills More Powerful  
Sound to Light: Exploring Frequency-Vibration Relationships  
Luminol solves crime: Revealing Evidence with a Lasting Glow  
Which Infill is the Strongest  
Speed of Relief  
Hydration at its Best  
Oh My Gravity!: Finding the Acceleration due to gravity on Earth  
Shank Science: Redefining Pointe Shoe Durability

Aditya Mahes  
Jerry Liu, Vivan Mukherjee

## Gold

Brinn Wight  
Saad Syed  
Maryam Ahmad, Ali Ahmad  
Priyas Khatiwada, Angad Dhanjal  
Felicity Banbury  
Aris Chan  
Gurnoor Kaur  
Harman Bawa  
Ethan Batiste, Arya Bandi  
Josh Wu, Andy Duong  
Abigail Chan  
Johann Kumarakulasingam  
Samar Baseer  
Iqra Sheikh, Nitya Patel  
Carson Toonstra, Abigail Toonstra  
Ayesha Abubakr  
Kate Korczak  
Chloe Kizito  
Matthew Chen  
Ben Walsh, Logan McKenna  
Emily Huang  
Ashish Chettimada  
Tavie Gaiotto, Alita Gaiotto  
Hasan Khan  
Megan Allen  
Jujhar Seehra  
Umaiza Reza  
Tristan Butcher  
Vera Golubitsky  
Mikael Sharify-Funk  
Natalie Mosca  
Hala Alshrbini  
Cindy Cheng

## Best in Division

Gurnoor Kaur  
Ashish Chettimada  
Cindy Cheng

## Best Written Reports

Oliver Backer  
Lily Zoretic  
Umaiza Reza  
Carson Toonstra, Abigail Toonstra

How to win at Monopoly  
Project AeroHydro

Scraper Snail  
Artificial Pancreas: AI Powered Smart Insulin Delivery  
An Automatic Robot Sprayer  
Forget the Prick: Creating Non-Invasive Glucometers  
SoilSense: A Novel Machine Learning SOC Prediction Approach  
Sepsis, Machine Learning, and Mixed Frequency Analysis  
SynaptiQ: Detection and Prevention of Hospital Induced Delirium  
SoilSync  
SPARTN: Drug-Loaded Bull Spermatozoa for Disruption of Biofilm  
Heartbeat Hunters: Using Video Photoplethysmography to Unmask AI  
eQ-PRISM: EEG-Quantum Model for Parkinson's Diagnosis  
The Connection Between Smell And Memory  
Microorganisms Eliminating Microplastic  
Lights Out: How Screen Time Affects Sleep  
Testing the Effectiveness of Virtual Pet Therapy  
Novel Phage-Mediated Targeted Lung Cancer Therapy  
Hasty Hormones: a solution to precocious puberty  
Genome Editing of E.coli for gene expression in IBD Treatment  
Plant Chemical Rivalry: The Hidden Battle Underground  
The Blight of Light: Photoperiod's Effects on Plant Immunity  
QSAR-Based Virtual Screening For T. gondii Autophagy Inhibitors  
MycoShield:RNAi-Based Biopesticide for Fungal Pathway Disruption  
I want it ... or do I? ChatGPT and Bias  
Insulating The Future: The Thermal Efficiency Of Recyclables  
Paper Airplanes  
Carbon Doesn't Rock (Usually)  
EEG Frequency Band Optimization for Internal Speech Recognition  
Detecting and Quantifying Molecules in Exoplanetary Atmospheres  
Restoring Global Temperature by Enhancing the Hydrologic Cycle  
To Illuminate Evapo-Rates!  
Cross-Contamination: The Truth Behind What "We Cannot Guarantee"  
A Plant to Heal the Earth  
3D Bioprinting Soft Microrobotic Niches for Stem Cell Delivery

SynaptiQ: Detection and Prevention of Hospital Induced Delirium  
MycoShield:RNAi-Based Biopesticide for Fungal Pathway Disruption  
3D Bioprinting Soft Microrobotic Niches for Stem Cell Delivery

Catgrass: the Ideal Conditions for Growing  
Sunscreen Showdown  
EEG Frequency Band Optimization for Internal Speech Recognition  
Testing the Effectiveness of Virtual Pet Therapy

Ethan Batiste, Aarya Bandi  
Hala Alshrbini

SPARTN: Drug-Loaded Bull Spermatozoa for Disruption of Biofilm  
A Plant to Heal the Earth

## Stephen J. Little Award

Natalie Mosca

Cross-Contamination: The Truth Behind What "We Cannot Guarantee"

## Stepping Stone Awards

Vera Golubitsky

Restoring Global Temperature by Enhancing the Hydrologic Cycle

Megan Allen

Paper Airplanes

Chloe Kizito

Genome Editing of E.coli for gene expression in IBD Treatment

Kate Korczak

Hasty Hormones: a solution to precocious puberty

Max Winter

Regional Differences In Birdsong

Maya Kidron

How Does Word Placement in a List Affect Memory Recall?

## Awards of Merit

Gurnoor Kaur

SynaptiQ: Detection and Prevention of Hospital Induced Delirium

Ashish Chettimada

MycoShield:RNAi-Based Biopesticide for Fungal Pathway Disruption

Cindy Cheng

3D Bioprinting Soft Microrobotic Niches for Stem Cell Delivery

Felicity Banbury

SoilSense: A Novel Machine Learning SOC Prediction Approach

Tristan Butcher

Detecting and Quantifying Molecules in Exoplanetary Atmospheres

Emily Huang

QSAR-Based Virtual Screening For T. gondii Autophagy Inhibitors

Brinn Wight

Scraper Snail

Ayesha Abubakr

Novel Phage-Mediated Targeted Lung Cancer Therapy

Maryam Ahmad, Ali Ahmad

An Automatic Robot Sprayer

## Founder's Award of Excellence

Cindy Cheng

3D Bioprinting Soft Microrobotic Niches for Stem Cell Delivery