LISEF

Bethpage High School

2ND
Maya Lillian Maciel-Seidman (Bethpage High School), Suchitha Channapatna (Bethpage High School), Ruchitha Channapatna (Bethpage High School)
Environmental Engineering
Solar-Powered Soil Sensing Robot: A Novel Agricultural Device for Monitoring Moisture and pH

Brentwood High School

2ND
Leena Alzafarani (Brentwood High School)
Plant Sciences
TURN TO NATURE: THE USE OF SALT WATER FOR THE MITIGATION AND CONTROL OF JAPANESE KNOTWEED, REYNOUTRIA JAPONICA

Cold Spring Harbor High School

H.M
Andrew Khanin (Cold Spring Harbor High School)
Biomedical and Health Sciences
Testing the Effects of Flavorant Propylene Glycol Acetals on the Locomotor Behavior of Drosophila Melanogaster Using the Rapid Iterative Negative Geotaxis (RING) Assay

Commack High School

2ND
Brianna Han (Commack High School)
Earth and Environmental Sciences
Markov chain Monte Carlo methods for estimating rainfall rate from dual-polarization weather radar

H.M

Chapin Luke Zerner (Commack High School)

Computational Biology and Bioinformatics

Using Machine Learning to Predict Features Related to the Adaptive Immune Response in COVID-19

East Meadow High School

2ND

Nishanth Chinnadurai (East Meadow High School), Udithi Kothapalli (St Anthony's High School), Hugo Patrick Onghai (Earl L. Vandermeulen High School/Port Jefferson UFSD)

Chemistry AND Material Science AND Energy:Sustainable Materials & Design

Molecular-Imprinted Biosensor for SARS-CoV-2 Detection

H.M

Noel F Manalil (East Meadow High School), Jayden Abraham (East Meadow High School)

Earth and Environmental Sciences

The Effects of Media and Hydraulic Retention time on Nitrogen Retention in Bioreactors for Wastewater Treatment

Elmont Memorial

2ND

Christopher Edward Alexander (Elmont Memorial)

Microbiology

Avian Paramyxovirus Serotype 4 (APMV-4) Promotes Apoptotic Cell Death & Stimulated Immune Responses in Malignant Melanoma and Relapse Cancers in respect to Newcastle Disease Virus (NDV): Characterization of a Novel Oncolytic Virus

Elwood - John H. Glenn

1ST

Rithika Narayan (Elwood - John H. Glenn)

Earth and Environmental Sciences

Harnessing Deep Learning to Assess Coral Reef Health through Crowd-sourced Efforts

George W. Hewlett High School

1ST

Blake Charles Lippman (George W. Hewlett High School), Tyler Logan Bissoondial (John F. Kennedy High School)

Plant Sciences

Lipopolysaccharide and Galactose Induce Cell Death in Prothallial Cells of Gametophytes of Ceratopteris richardii

3RD

Benjamin Alex Sherman (George W. Hewlett High School)

Chemistry AND Material Science AND Energy:Sustainable Materials & Design

Size Optimization of Gold Nanoparticles Functionalized on PEMFC Interfaces to Increase Power Efficiency

Great Neck North High School

1ST

Danielle Lauren Gruber (Great Neck North High School)

Computational Biology and Bioinformatics

A Game Theoretic Model of the Resting State Brain

Half Hollow Hills East

2ND

Mark Shapiro (Half Hollow Hills East)

Robotics and Intelligent Machines

Analysis of Neural Network Community Structure: a Network-Theoretic Approach

Half Hollow Hills West

2ND

Aaliyah Naomi Bullen (Half Hollow Hills West)

Behavioral and Social Sciences

The Prevalence of Energy Intake Methods in New York State Obesity Prevention Policies

Herricks High School

2ND

Kyle Pinzon (Herricks High School)

Cellular and Molecular Biology AND BioChemistry

Screening and Modifying DEDDh Exonuclease Inhibitors for Targeting the SARS-CoV-2 nsp14 ExoN Catalytic Site

H.M

Rhea Rasquinha (Herricks High School)

Biomedical and Health Sciences

Identifying the Prognostic, Tumor-suppressive and Immunologic Roles of IRF5 in Breast Cancer

Huntington High School

3RD

Erin Lynn Ye (Huntington High School)

Behavioral and Social Sciences

Desde Casa: Examining the Correlation between Perception of Learning in a Virtual Model and Bilingual Vocabulary Knowledge in Spanish-Speaking ENL Students

Jericho High School

1ST

Catherine Kim (Jericho High School)

Computational Biology and Bioinformatics

Novel Prediction of Adverse Drug Reactions and Underlying Pathological Mechanisms via Hierarchical Classification

1ST

Janice Kirti Rateshwar (Jericho High School)

Translational Medical Science AND Biomedical Engineering

Molecular Mechanisms of Direct Inhibition of NF-κB Subunits by 9-chloro-8-(hexyloxy)-2H-chromeno[2,3-d] pyrimidine-2,4(3H)-dione (IT-848)

2ND

Natalia Pahlavan (Jericho High School)

Biomedical and Health Sciences

AcuRe: Third-Generation Machine Learning Cancer Detection Model Using Nanopore Read Alignments

2ND

Alice Zhaoyi Chen (Jericho High School)

Translational Medical Science AND Biomedical Engineering

MRgRT and delta radiomics: Early prediction of survival in pancreatic cancer

H.M

Rebecca Cho (Jericho High School)

Earth and Environmental Sciences

Associations between the North Atlantic Subtropical High and Tropical Cyclone Movement and Precipitation

John F. Kennedy High School

2ND

Jordyn Paige Krinsky (John F. Kennedy High School)

Animal Sciences

The Combinatorial Effects of Diet and Caffeine Mitigate Parkinson's Disease in a Drosophila melanogaster System

3RD

Julia Mary Levine (John F. Kennedy High School)

Animal Sciences

Reduced Fasciclin 2 Expression in Drosophila melanogaster Leads to Impaired Locomotor Function and Abnormal Stress Response Following Dietary Alterations of Carbohydrates in a Celiac Disease Model

Kings Park High School

2ND

Ryan WIlliam Menier (Kings Park High School)

Embedded Systems AND Engineering Mechanics

The Electron Ion Collider and the Evaluation of Steering Magnets for the Polarized Electron Source Prototype

Long Beach High School

2ND

Uma Arengo (Long Beach High School)

Math AND Physics & Astronomy

Using Box-Counting Dimension to Quantify the Progressive Stages of Diabetic Retinopathy

Lynbrook High School

1ST

Ashley Katherine Roth (Lynbrook High School)

Earth and Environmental Sciences

Aquatic Habitat Nitrate Levels on Long Island: The Effect of High Nitrate Levels on Anuran Species Abundance

1ST

Kathryn Elizabeth Postiglione (Lynbrook High School)

Math AND Physics & Astronomy

Analyzing the Photometry of Star Cluster Messier 39: Creation of Color Magnitude Diagram, Age Calculation, and Distance Measurement

Manhasset High School

1ST

Ethan Horowitz (Manhasset High School)

Robotics and Intelligent Machines

CET-CNN: Modular Hierarchical Image Classification Using Conditional-Execution Tree CNNs

1ST

Julius Yoh (Manhasset High School)

Environmental Engineering

The Optimization of Desalination and Ion-Removal Rate Through the Engineering of Novel Turbulent Modular Designs in an Electrodialysis System

3RD

Mir Zayid Alam (Manhasset High School)

Computational Biology and Bioinformatics

Identification of Genetic Biomarkers for Hepatocellular Carcinoma Using an Automated Microarray-Based Pipeline and Pathway Enrichment

Northport High School

1ST

James Connor (Northport High School)

Systems Software

Attributing State-backed Information Operations on Twitter through Machine Learning

Paul D. Schreiber High School

1ST

Samantha Rose Radinsky (Paul D. Schreiber High School)

Biomedical and Health Sciences

The role of bone lineage cells during digit tip regeneration in adult mice

Plainview-Old Bethpage JFK High School

1ST

Carly Sara Friedman (Plainview-Old Bethpage JFK High School)

Behavioral and Social Sciences

Education During a Pandemic: Exploring the Effectiveness of Synchronous versus Asynchronous E-learning From A Teacher's Perspective

1ST

Brian Insuhp Lee (Plainview-Old Bethpage JFK High School)

Chemistry AND Material Science AND Energy:Sustainable Materials & Design

Evaluating the efficacy of repurposed and modified traditional eastern medicinal compounds on Coronavirus Family specific target structures.

Sacred Heart Academy

H.M

Mary Helen Menger (Sacred Heart Academy)

Animal Sciences

Canaries in the Coalmine: Evaluating the Effect of Petrochemical Contamination on the Cardiovascular Health of Daphnia Magna

Smithtown High School East

1ST

Nethmi Withanage (Smithtown High School East)

Behavioral and Social Sciences

The Analysis of the Use of Color in Pandemic Artwork Using Digital Quantifications

St Anthony's High School

2ND

Steven Anthony Cayea (St Anthony's High School)

Systems Software

Efficiency of Data Compression Algorithms for Low-Cost Laser Transceivers

3RD

Miah Christina Margiano (St Anthony's High School)

Cellular and Molecular Biology AND BioChemistry

Synergy of Treatment: Therapeutic Vulnerabilities in Small Cell Lung Cancer

Syosset High School

1ST

Maiya Ali Raghu (Syosset High School)

Animal Sciences

The Effect of EGCG on Oxidative Stress in C. elegans

1ST

Isabella Souza (Syosset High School)

Behavioral and Social Sciences

Seeing Through the Scan: The Impact of fMRI Evidence on Juror Satisfaction and Verdicts

1ST

Giselle Leah Rasquinha (Syosset High School)

Microbiology

FD028: A Bifunctional HIV-1 Inactivator Acts Before Host Cell Entry

H.M

Jennie Dapice (Syosset High School)

Behavioral and Social Sciences

The Influence of Political Party on the Extent of State E-cigarette Regulation

H.M

Michael Chu (Syosset High School)

Computational Biology and Bioinformatics

CoronaXNet: Using Convolutional Neural Networks to Automate the Detection of COVID-19 from Chest X-Ray Images

The Wheatley School

1ST

Yifang Zha (The Wheatley School)

Biomedical and Health Sciences

Curcumin and Capsaicin Synergistically Suppress Neuroblastoma Tumor Development

Valley Stream South High School

3RD

Sameer Singh (Valley Stream South High School)

Math AND Physics & Astronomy

Exo2: An Investigation into a Novel Characterization Model for Transit Photometry

W. Tresper Clarke High School

3RD

Blessycicilia Sebastian (W. Tresper Clarke High School)

Earth and Environmental Sciences

Analyzing the Effect of Silver Nanoparticles on Aquatic Daphnia Magna

H.M

Elianna Michelle Rivera (W. Tresper Clarke High School)

Behavioral and Social Sciences

Measuring Opportunity for Immigrants Through the Creation of a Political Index: A Longitudinal Study

Wantagh High School

1ST

Margaret Anne Gates (Wantagh High School)

Embedded Systems AND Engineering Mechanics

Autonomous Wildfire Detection and Containment System

Ward Melville High School

1ST
Neil Mehta (Ward Melville High School)
Cellular and Molecular Biology AND BioChemistry
The Effect of IL-22 Stimulation on Paneth Cell Granule Morphology and Epithelial Cell Proliferation

3RD
Akshay Malhotra (Ward Melville High School)
Biomedical and Health Sciences
Impact of Body Mass Index on Clinical Presentation, Management, and Outcomes in Adults with Cardiac Arrest Undergoing Coronary Angiogram

William A. Shine Great Neck South High School

2ND
Reid Fleishman (William A. Shine Great Neck South High School)
Computational Biology and Bioinformatics
Creation of a Machine Learning App to Facilitate Pancreatic Cancer Prediction