Bethpage High School

1ST
Sofia Eliza Maciel-Seidman (Bethpage High School), Riya Saha (Bethpage High School), Joy Kim (Bethpage High School)
Environmental Engineering
Developing a Hydroponic System With The Incorporation of an Arduino Uno Powered pH Sensor

2ND
Ankur Raghavan (Bethpage High School)
Environmental Engineering
Reduction of Agricultural Water Consumption through the Utilization of a Wireless Sensor Array

3RD
Zoe Naree Chinda (Bethpage High School)
Earth and Environmental Sciences
Minimizing Nitrogen Fertilizer Use for Residential Lawns

H.M
Devaanshi Kawatra (Bethpage High School)
Animal Sciences
Investigating the Role of Sunlight in Regenerating Planarians

H.M
Parisa Pitiranggon (Bethpage High School)
Earth and Environmental Sciences
The Effects of Fertilizers with Different Levels of Element Content on Soil pH

H.M
Miraj Ketan Shah (Bethpage High School)

Math, Physics and Astromony

The Impact of New Base Size on Major League Baseball Outcomes

Brentwood High School

1ST

Kevin Mauricio Leal (Brentwood High School)

Earth and Environmental Sciences

Cost-Effective Air Quality Monitoring Using Readily Available Programming Interfaces

Cold Spring Harbor High School

H.M

Hannah Helen Van Son (Cold Spring Harbor High School)

Chemistry and Material Science

The Mechanosynthesis of Yb3+ Doped CsPbCl3.

Commack High School

3RD

Jonathan Zhang (Commack High School)

Behavioral and Social Sciences

Differential Diagnosis of Sleep Disorder Subtypes with Neural Aperiodic Components

3RD

Brandon David Berkoff (Commack High School)

Math, Physics and Astromony

Lunar Water Content as Determined by Crater Feature Analysis

H.M

JIn Ko (Commack High School)

Animal Sciences

Behavioral Analysis on the discrepancies in Circadian Rhythms of Drosophila melanogaster and its

mutational counterparts

H.M
Anna Louise Rohring (Commack High School)
Translational Medical Science
ssPERG Parameters Associated with Visual Field Global Indices and OCT Thickness Measurements in Glaucoma Suspects

East Hampton High School

2ND
Egan Robert Barzilay (East Hampton High School)
Engineering: Sustainable Energy and Engineering Technology
Time-Averaged Flow Field Prediction Of Wind Turbine Wakes Using Autoencoder Convolutional Neural Networks

H.M
Skye Louise Tanzmann (East Hampton High School)
Earth and Environmental Sciences
Estimating Oyser Reef Clearance Rates and Evaluating Reef Mortality

H.M
Cooper Alan Ceva (East Hampton High School)
Microbiology
The Effect of pH on Growth and Hydrocarbon Metabolism of Alcanivorax Borkumensis sk2

Elwood - John H. Glenn

H.M
Grace Motta (Elwood - John H. Glenn), Alexandra Nicole Ebanks (Harborfields High School)
Biomedical and Health Sciences
Examining the Relationship between gC1qR and the PD-1/PD-L1 Axis in Hepatitis-C, HIV-1, and Cancer Cells.

Garden City High School

3RD

James Nagler (Garden City High School)

Embedded Systems, Robotics and Intellectual Machines and System Software

Project Shadow - Custom Wireless Student Safety Tracker For Schools

H.M

Mannat Vikramaditya Jain (Garden City High School)

Embedded Systems, Robotics and Intellectual Machines and System Software

Using Machine Learning to Translate Sign Language Gestures into Text and Speech

George W. Hewlett High School

3RD

Hiral Milind Chavre (George W. Hewlett High School)

Animal Sciences

NMDA Receptor Mutation and KCC2 Inhibition Induce Changes in Brain Development Associated with Neurodevelopmental Diseases

3RD

Alexandre Tourneux (George W. Hewlett High School)

Computational Biology and Bioinformatics

The Annotation of Novel Datasets for the Training of Cellori (Cell Origin) Spots, a Deep Learning Algorithm for RNA FISH Spot Detection

H.M

Mikayla Joseph (George W. Hewlett High School)

Plant Sciences

Orthologue of Root Hair Defective 3 (RHD3) in Ceratopteris richardii is affected by DNA Methylation and Regulates Rhizoid Development in Gametophytes

Half Hollow Hills East

2ND

Jacob Aaron Leshnower (Half Hollow Hills East)

Behavioral and Social Sciences

Employing the Open Fifth to Determine Emotional Bias in Music's Major-Minor Dichotomy

3RD

Landon Asher D'Agate (Half Hollow Hills East)

Plant Sciences

Seed Priming with Melatonin Improves Drought Tolerance in Maize

H.M

Alice Tianxin Wang (Half Hollow Hills East)

Bio Chemistry and Bio Medial Engineering

A novel general method for in-liquid atomic force microscopy and near-field optical microscopy of photosensitive proteins

Half Hollow Hills West

H.M

Viti Chandra (Half Hollow Hills West)

Math, Physics and Astromony

Quantum Computing for Rotating, Charged, de Sitter, and String Black Holes

Herricks High School

2ND

Megan Cheng (Herricks High School)

Earth and Environmental Sciences

Normalized Difference Vegetation Index and Gross Primary Productivity: Predicting Biogenic Carbon Fluxes in the New York City Metropolitan Area

3RD

Ashley Lam (Herricks High School)

Environmental Engineering

Novel Zinc Oxide/Nanocellulose Composite as a Low-Cost Photocatalyst for Water Purification

Jericho High School

1ST

Natalia Pahlavan (Jericho High School)

Bio Chemistry and Bio Medial Engineering

Bidirectional 12-lead Electrocardiogram and Electrogram Reconstruction Using a Cycle Generative Adversarial Network

1ST

Natasha Kulviwat (Jericho High School)

Biomedical and Health Sciences

Claudin-5: A Novel Biomarker of Blood-Brain Barrier Breakdown to Predict and Prevent Suicide

1ST

Lucas Evan Sher (Jericho High School)

Cellular and Molecular Biology

Rethinking Pancreatic Ductal Adenocarcinoma (PDAC) Prognosis: Analysis of KRAS-dependent Biomarkers Across Subtypes

1ST

Kevin Zhu (Jericho High School)

Computational Biology and Bioinformatics

Micro-Changing Short Tandem Repeats: Investigating A Novel Genomic Factor of Polymorphism in 10 Human Cancers

2ND

Samay Lakhani (Jericho High School)

Embedded Systems, Robotics and Intellectual Machines and System Software

Fusing ConvNeXt and Histogram of Oriented Gradients (CNHOG) for Modular and Efficient Driver Distraction Detection

3RD
Rhea Sakaria (Jericho High School)
Translational Medical Science
Identifying a Potent Wnt Compound to Enhance Stemness Post-Radiation through Activating the Canonical Wnt Signaling Pathway

John F. Kennedy High School

1ST
Sammer Soliman (John F. Kennedy High School)
Microbiology
Pioneering Microbial Communities and Biofilm Succession on Plastic in a New York City Waterway
2ND
Tyler Logan Bissoondial (John F. Kennedy High School)
Plant Sciences
Isolation and Characterization of a Class III High-Affinity Potassium Transporter (HKT) in the Seedless Vascular Fern Ceratopteris richardii
2ND
Ty Michael Gelman (John F. Kennedy High School)
Translational Medical Science
The Concurrent Effects of Dietary Restriction and Exercise on a Drosophila melanogaster Model of Spinal Muscular Atrophy

John L. Miller Great Neck North High School

H.M
Rena Geula (John L. Miller Great Neck North High School)
Behavioral and Social Sciences
Comparison of Human Social Brain Activity During Eye-Contact With Another Human and a Humanoid Robot

H.M

Addison Miles Klebanov (John L. Miller Great Neck North High School)

Cellular and Molecular Biology

Evaluating the Effect of βII Spectrin Knockout on Pyruvate Kinase Molecule 2 Expression and Hepatocellular Carcinoma Development

Kings Park High School

2ND

Christina Ziccardi (Kings Park High School)

Earth and Environmental Sciences

Projected spatial overlap of Brevoortia tyrannus with BOEM Wind Farm Lease Areas in the NewYork Bight as influenced by time and water temperature changes

H.M

Ryan Matthew Guzman (Kings Park High School)

Earth and Environmental Sciences

Using Artemia salina as a model to observe the effect of acidification on a marine ecosystem.

Lynbrook Senior High School

2ND

Gabrielle Hope Geller (Lynbrook Senior High School)

Earth and Environmental Sciences

The Effects of Ocean Acidification and Different Plastic Substrates on the Abundance of Pathogenic Vibrio in the Plastisphere

3RD

Riley J Fowler (Lynbrook Senior High School)

Microbiology

Establishing the Connection Between the Twin-Arginine Translocation A1 and Twin-Arginine Translocation A2 Protein Pathways in Acinetobacter baylyi as a Model Organism

Manhasset High School

1ST

Emily Theodosopoulos (Manhasset High School)

Engineering: Sustainable Energy and Engineering Technology

Production of Plasma-Enhanced SiO2 films for optimizing photovoltaic cells

2ND

Benjamin Nyein Punzalan (Manhasset High School)

Biomedical and Health Sciences

Crosstalk between Alzheimer's disease and SARS-CoV-2 infection is mitigated by ginkgolides A and B in HTB-11 and U937 cell models

3RD

Ericka Lai (Manhasset High School)

Chemistry and Material Science

Phosphorylation of Cellulose Nanofibers for Ammonium Adsorption

3RD

Manav Gupta (Manhasset High School), William Charles Wesson (Manhasset High School)

Engineering: Sustainable Energy and Engineering Technology

Application of Piezoelectrics to Solar Cells to Optimize Energy Harvesting Abilities via Exposure to Varying Weather Conditions

H.M

Chelsea Lim (Manhasset High School)

Engineering: Sustainable Energy and Engineering Technology

Optimizing the Conversion Efficiency of Dye-Sensitized Solar Cells Using Chlorophyll and Anthocyanins

H.M

Dylan Yoon (Manhasset High School), Emily Zhao (Manhasset High School)

Environmental Engineering

Sustainable Sargassum Supercapacitive Microbial Desalination Fuel Cell for Improved Bioelectricity Production and Simultaneous Desalination

North Shore High School

3RD

Sophia Davis Marchioli (North Shore High School)

Earth and Environmental Sciences

The Morning Cup of Joe is in Danger: A climate assessment of Ethiopia, Kenya, Tanzania, and Uganda in relation to coffee

3RD

Michelle Yu (North Shore High School)

Earth and Environmental Sciences

Don't Count Your Styela plicata Eggs Before They Hatch: The Impact of Salinity on Fertilization

Oceanside High School

3RD

Alexis Lauren Alfasi (Oceanside High School)

Biomedical and Health Sciences

The Effects of Mevastatin on 3p Loss and 3q Chromosome Gain

Paul D. Schreiber High School

1ST

Mikayla Schwartz (Paul D. Schreiber High School)

Behavioral and Social Sciences

Occupational Stress and Mental Health Outcomes among the Emergency Medical Services Population

2ND

Camryn Marisa Neches (Paul D. Schreiber High School)

Computational Biology and Bioinformatics

The Identification and Analysis of Novel TP53 Hotspots and p53 Protein Structures

H.M

Sydney Flisser (Paul D. Schreiber High School)

Behavioral and Social Sciences

Verb Learning With and Without Modifiers in Autistic Toddlers

H.M

Abigail Smith (Paul D. Schreiber High School)

Bio Chemistry and Bio Medial Engineering

Skin Cancer Detection with Raspberry Pi and TensorFlow

H.M

Amelia Ilyse Abell (Paul D. Schreiber High School)

Cellular and Molecular Biology

Analyzing the interaction between HRAS, STAT3 and LRPPRC in the mitochondria

H.M

Reed Matthew Paltrow (Paul D. Schreiber High School)

Computational Biology and Bioinformatics

Online Machine Learning of Platelet Dynamics via Massive Multiscale Modeling

Plainedge High School

H.M

Aleeza Naeem Mughal (Plainedge High School)

Biomedical and Health Sciences

An Examination of the American Smile: An Analysis of Dental Attendance Disparity Factors

Plainview-Old Bethpage JFK High School

1ST

Elif Koch (Plainview-Old Bethpage JFK High School)

Behavioral and Social Sciences

Impacts of Levodopa and Traditional Medicines on the Locomotion of Alpha-Synuclein Caenorhabditis elegans

3RD

Margaret H. Lin (Plainview-Old Bethpage JFK High School)

Behavioral and Social Sciences

The Effect of Eco-Labeling Methods on Food Packaging on Consumer Health Halos

Roslyn High School

1ST

Jake Ethan Konigsberg (Roslyn High School)

Biomedical and Health Sciences

Investigating the Anti-Inflammatory Effects of Famotidine

2ND

Jacob Tyler Gross (Roslyn High School)

Microbiology

In Vitro Analysis Reveals Synergistic Interactions Among SARS-CoV-2 Neutralizing Antibodies

3RD

Sara Rosenbaum (Roslyn High School)

Behavioral and Social Sciences

The Effect of Image Manipulation on Social Comparison, Body Satisfaction, and Self-Esteem

3RD

Emelie Jada Nguyen (Roslyn High School)

Biomedical and Health Sciences

Global DNA Methylation Profiles of WTC-Associated Breast and Prostate Cancer Tissue

H.M

Amanda Gail Liswood (Roslyn High School)

Biomedical and Health Sciences

Effects of Cytokines on Lacrimal Gland Myoepithelial Cell Contractile Ability

Seaford High School

2ND

Kailly Elizabeth Nocera (Seaford High School)

Math, Physics and Astromony

An Analysis of Exoplanets WASP-33b, WASP-3b, CoRot-8b, and HAT-P-32b Using the Transit Method

Smithtown High School East

1ST

Holy Mary Zaher (Smithtown High School East)

Behavioral and Social Sciences

The Correlation Between Peroxisome Levels and Short-Term Memory Loss in a PINK1 -/- Rat Model of Parkinson's Disease

2ND

Jennifer Zhong (Smithtown High School East)

Animal Sciences

A Larval Zebrafish Model for the Developmental Effects of Hypoxia on Survival and Behavior

2ND

Jolene Hanying Cao (Smithtown High School East)

Chemistry and Material Science

Periodic Arrays of PDMS for Light-Driven Reversible Printing and Encryption

H.M

Anagh Gupta (Smithtown High School East)

Embedded Systems, Robotics and Intellectual Machines and System Software

Computational Modeling Lof Pedestrian Traffic Flow in a Suburban High School

H.M
Jessica Donna Penna (Smithtown High School East), Sanjivani Singh (Smithtown High School East)
Plant Sciences
Reducing Nitrogen Pollution from Chemical Fertilizers Through the Implementation of Nitrogen-Fixation-Inducing Bacillus subtilis

St Anthony's High School

2ND
Miah Margiano (St Anthony's High School)
Cellular and Molecular Biology
Spontaneous Regression in Neuroblastoma: Analysis of Prognostic LncRNAs

Syosset High School

1ST
Vincent W. Huang (Syosset High School)
Chemistry and Material Science
An advanced computer app for simulating white-beam diffraction Laue patterns ?in modern X-ray crystallography?
1ST
Imran Karim Gangat (Syosset High School)
Embedded Systems, Robotics and Intellectual Machines and System Software
A Novel Reinforcement Learning-Based Neural Network for Stock Portfolio Management
2ND
Zachary David Kam (Syosset High School)
Behavioral and Social Sciences
Transformative Transactions: An Analysis of Factors Affecting ESG and Impact Investing Behaviors
2ND
Sabrina Guo (Syosset High School)

Behavioral and Social Sciences

Differential Emergency Contraceptive Use Among Young Women in the United States from 2006 to 2019

2ND

Alex L Wang (Syosset High School)

Bio Chemistry and Bio Medial Engineering

Spatially Multiplexed Gold Leaf Electrodes for Affordable Pathogenic Detection

H.M

Grace YS Na (Syosset High School)

Microbiology

Antibacterial Activity of Spice Essential Oils Against Escherichia coli

The Stony Brook School

H.M

ivy li (The Stony Brook School)

Engineering: Sustainable Energy and Engineering Technology

Analysis and Design of Biomorphic Snake Robot

Valley Stream North High School

H.M

Samantha Altieri (Valley Stream North High School)

Behavioral and Social Sciences

Analyzing Adult Political Opinion Through Alternative Characterizations of the January 6th, 2021, Capitol Attack

Valley Stream South High School

1ST

Ibrahim Syed Qadri (Valley Stream South High School)

Animal Sciences

The Ability of Vitamin E to Improve the Locomotor Fitness, Reproduction, and Metabolic Respiration of Nicotine-Induced D. melanogaster

H.M

Zainab Razia (Valley Stream South High School)

Behavioral and Social Sciences

Differences in the Emotional Interpretation of Whole-Body Expressions based on Immigrant Status and the Role of Cognitive and Affective Empathy.

Ward Melville High School

1ST

Joseph Daniel Sciotto (Ward Melville High School)

Earth and Environmental Sciences

Laboratory studies of X-ray amorphous phases: Constraining the amorphous components in Martian Soils and Rocks

West Islip High School

1ST

Emma D Fallon (West Islip High School)

Earth and Environmental Sciences

Analysis of Microplastic Compositions in Salt and Freshwater on the South Shore of Long Island

H.M

Asfar Chaudhry (West Islip High School)

Chemistry and Material Science

Elemental Analysis of Lichens Through Tender Energy X-ray Spectroscopy

Westhampton Beach High School

1ST

Jack C Schultz (Westhampton Beach High School)

Plant Sciences

Alteration in Concentration and Spatial Distribution of Selenium, Copper, and Essential Physiological Micronutrients in Saccharina Latissima in a Dose-Response to Carbon Dioxide.

William A. Shine Great Neck South High School

1ST

Yida Pan (William A. Shine Great Neck South High School), Luke Huang (William A. Shine Great Neck South High School)

Math, Physics and Astromony

VaSt-ID: Novel Application for Variable Star Identification and Classification using Machine Learning

1ST

Yifu Zuo (William A. Shine Great Neck South High School), Richard Li Xu (William A. Shine Great Neck South High School)

Translational Medical Science

FetA.I.: A novel fetal health classification program using soft voting with deep and ensemble learning

2ND

Andria Chen (William A. Shine Great Neck South High School)

Biomedical and Health Sciences

Investigating Genetic and Biological Differences between African American and Caucasian Endometrial Cancer Patients

3RD

Amber Sun (William A. Shine Great Neck South High School)

Bio Chemistry and Bio Medial Engineering

Neuroprotective Effects of Red Raspberry Extract and Broussoflavonol B in Alzheimer's Disease Models

3RD

Dana Kagan (William A. Shine Great Neck South High School)

Cellular and Molecular Biology

Employing CRISPR Cas9 editing to correct the ΔF508 mutation of the Cystic Fibrosis Transmembrane Conductance Regulator Gene

H.M

Amit Saha (William A. Shine Great Neck South High School)

Computational Biology and Bioinformatics

Deep Learning Accelerated Lattice-Boltzmann Simulations for Multiscale Modeling of Thrombosis

H.M

Shaan Merchant (William A. Shine Great Neck South High School)

Environmental Engineering

Plant Guardian: Hybrid Drone System and Deep Learning Approach to Plant Disease Classification

H.M

Xinyi Zhang (William A. Shine Great Neck South High School)

Translational Medical Science

Alpha-lipoic acid treatment of Drosophila melanogaster as a novel therapeutic method targeting mTOR-associated cognitive deficits in Fragile X Syndrome