

2019 New York City Science and Engineering Fair - Finalist List

The New York City Science and Engineering Fair (NYCSEF), sponsored by the New York City Department of Education (NYCDOE) and the City University of New York (CUNY) / Office of Academic Affairs, is the city's largest high school research competition. More than 700 students from around the city submitted applications to the 2019 NYCSEF for a chance to compete for a variety of cash and prizes including an all-expense trip to Phoenix, AZ representing NYC at the Intel International Science and Engineering Fair (ISEF). This year's Preliminary Event was held on Sunday, March 3, 2019 at The City College of New York (Manhattan). Listed below are the names of the students who have been selected to advance to the Finals Event on Tuesday, March 19, 2019 at the American Museum of Natural History. For more information about NYCSEF please visit nycsef.cuny.edu.

The NYCSEF Awards Ceremony will be held on March 25 at The Gerald W. Lynch Theater at John Jay College from 4:00PM – 6:00PM. ISEF finalists, Special Award, and NYCSEF Award winners will be announced during this ceremony. THE STUDENT RECIPIENT OR A FAMILY MEMBER MUST BE PRESENT TO CLAIM ALL AWARDS - THIS INCLUDES THE OPPORTUNITY TO REPRESENT NYC AND ATTEND ISEF.

Academy of American Studies High School

Student Name	Category	Project ID	Project Title
Rabah Husien	Engineering	258554 (Team)	Extube-Alert: Detecting Unplanned Extubation

Archbishop Molloy High School

Student Name	Category	Project ID	Project Title
Nicholas Labranche	Physics & Space Sciences	190156 (Indiv)	New Designs in Superconducting Microwave Cavity Resonators

Avenues: The World School

Student Name	Category	Project ID	Project Title
Wonyoung Park	Mathematical & Computer Science	998752 (Indiv)	Car Convolutional Neural Network

Bard High School Early College

Student Name	Category	Project ID	Project Title
Daniela Plaza	Cellular & Molecular Biology	619341 (Team)	N-RAS, ERK, MPAK1, and MPAK3 Gene Expression of MCF-10A and MDA-MB-468 Cells Treated with Mitomycin C and Decarbamoyl-Mitomycin C Drugs

Basis Independent Brooklyn

Student Name	Category	Project ID	Project Title
Lois Wang	Biochemistry	988110 (Indiv)	Identification of key motifs in HIPK2 molecule as drug target for anti-fibrosis therapy for kidney disease

Birch Wathen Lenox School, The

Student Name	Category	Project ID	Project Title
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Ethan Igel	Engineering	649448 (Indiv)	Smart Belt: An assistive device for the visually-impaired
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Bronx High School of Science

Student Name	Category	Project ID	Project Title
Tahmid Ahamed	Cellular & Molecular Biology	373144 (Indiv)	Novel analysis of the growth of the fetus: A much needed method for the precise diagnosis of microcephaly and other growth diseases
Leon Aharonian	Engineering	163524 (Indiv)	PoMS: Posture Monitoring Shirt; A comfortable shirt that uses Machine Learning to generate posture-defining coordinate transforms based on electrical resistance from stretch sensors
Philip Brous	Chemistry	368113 (Indiv)	Using a Quantum Equilibrium Ensemble to Uncover the Effects of Cage Flexibility on the Diffusion of Hydrogen Gas in Clathrate Hydrates
William Chen	Engineering	770163 (Indiv)	Computational Modeling of Novel Energy Storage Modules using Iteration-based Quantum Marcus Theory Equations in Applications of Alternative Energy
Alex Chen	Behavioral-Sociology & Psychology	724935 (Indiv)	Exploring Bipartisanship in Congress Through Bill Content: A Novel Application of Political Typology
Elizabeth Chen	Cellular & Molecular Biology	172016 (Indiv)	Targeting Somatic Mutated KRAS: A Novel Approach for the Computational Analysis in Binding Affinity for Immunotherapy of Pancreatic Cancer
Alyson Chin	Behavioral-Neuroscience	351795 (Indiv)	Apolipoprotein E4 in perivascular macrophages interferes with cerebral microcirculation and exacerbates white matter injury and cognitive dysfunction.
Lucian Dobroszycki	Behavioral-Neuroscience	863584 (Indiv)	A Neuromodulator Exerts Antagonistic Effects on the Network State of Aplysia Californica
Joseph Doraid	Engineering	323395 (Indiv)	RAPID AND COST-EFFECTIVE MICROFLUIDIC CHIP FOR MOLECULAR DETECTION OF HEPATITIS C VIRUS FOR USE IN LOW AND MIDDLE INCOME COUNTRIES
Alexandra Ellerstein	Cellular & Molecular Biology	854257 (Indiv)	Exploring Prognostic Factors in Survivorship of Peritoneal Mesothelioma
Simon Fridlyand	Cellular & Molecular Biology	846302 (Indiv)	Using gene methylation to evaluate inherited nicotine addiction
Mohammadou Gningue	Mathematical & Computer Science	168720 (Indiv)	A Novel & Robust Computer Vision-based Algorithm for Heart Rate Estimation Using Cameras
Fardeen Hussain	Environmental & Earth Sciences	503135 (Indiv)	Can Deciduous Trees Effectively Reduce Stormwater Runoff Year-round? The Effect of Phenophase and Evapotranspiration on Interception.
Olga Khmel'nitsky	Microbiology	846174 (Indiv)	Ionosporus: A new genus for Boletus longipes (Boletaceae), with a new species I.australis, from Australia
Sterling Knight	Medicine & Health Sciences	854219 (Indiv)	Improvements in Health Related Quality of Life over the Course of Chronic Hepatitis C Treatment with Novel Direct Acting Antiviral Therapy
Ankith Kumar	Cellular & Molecular Biology	757838 (Indiv)	Development and validation of a novel computational algorithm to analyze meiosis in yeast: A study on the role of Spo16 and GMC2 in meiotic recombination

Dechen Lama	Cellular & Molecular Biology	293587 (Indiv)	Pleckstrin-2 Identified as a Compensatory Mechanism to Support Eucleation in β^2 -thalassemia
Ginger Lau	Cellular & Molecular Biology	790976 (Indiv)	Downregulation of HCN1 Expression by p38 MAPK in Differentiated Human Induced Pluripotent Stem Cells
Yea Won Lee	Behavioral-Sociology & Psychology	351523 (Indiv)	The Association Between Occupation and Non-Specific Psychological Distress in a Nationally-Representative Survey, 2004-2017
Nancy Lin	Cellular & Molecular Biology	368089 (Indiv)	Investigating the interactions between homeodomain protein Cut and two frequently mutated genes CIC and Idh in oligodendroglioma using Drosophila melanogaster as a model system
Kevin Liu	Cellular & Molecular Biology	854125 (Indiv)	Variations in the Signal Sequence of HIV and its impact on Phenotype of the Virus
Julia Michalak	Cellular & Molecular Biology	181520 (Indiv)	Mechanistic comparison of the elongation-termination transition by RNA Polymerase II in fission yeast and human transcription
Eshaan Modi	Behavioral-Sociology & Psychology	879879 (Indiv)	The Economic, Social, and Psychological Effects of Lost Time
Rachel Musheyev	Cellular & Molecular Biology	314837 (Indiv)	The Effect of Macrolides on Cytokine Production after Stimulation from an Agonist
Jonathan Nicastro	Cellular & Molecular Biology	438410 (Indiv)	Computational Analysis Reveals Structural Similarities between the Anti-inflammatory Mediator Milk Fat Globule-Epidermal Growth Factor-Factor 8 and the Pro-inflammatory Mediator Epidermal Growth Factor Substantiating Experimental Data Indicating MFG-E8's
Sakshi Shah	Cellular & Molecular Biology	540496 (Indiv)	The Role of the Histone Chaperone CAF-1 on the Maintenance of α - Cd4 gene silencing in CD8+ T Cells
Nusrat Tabassum	Microbiology	864575 (Indiv)	Investigating the Binding Affinity and the Dimerization Behavior of PfHDP1, a Homeodomain-like Domain Protein found in Plasmodium falciparum.
Cassie Tian	Cellular & Molecular Biology	010562 (Indiv)	The role of the TGF- β signaling pathway ligand DBL-1 in autophagy
Lhaden Tshering	Cellular & Molecular Biology	497206 (Indiv)	Increased expression of select immune activation markers on monocyte and T-cell populations in HIV-infected individuals post-ART
Samantha Wainapel	Behavioral-Sociology & Psychology	317398 (Indiv)	Avian Attraction: The Role of Color in Zebra Finch Responses to Various Model Birds
Zoe Wong	Cellular & Molecular Biology	600358 (Indiv)	Expansion of the Mendelian Error Method to the X chromosome for the identification of deletions pathogenic to congenital heart disease
Margaret Wong	Medicine & Health Sciences	872366 (Indiv)	Increased Inhibitory Activation of BLA in Resilient Animals after SDS
Jialin Zhuo	Environmental & Earth Sciences	333432 (Indiv)	Ash Me Again: Looking for U in All the Unusual Places at Golema PeÅit, Macedonia

Brooklyn Latin School, The

Student Name	Category	Project ID	Project Title
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Tricia Marchese	Engineering	505656 (Indiv)	Laser-Induced Graphene to Create A Microsupercapacitor
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Brooklyn Technical High School

Student Name	Category	Project ID	Project Title
Samia Alam	Chemistry	049636 (Team)	The variations of molar concentration of three different phytochemicals (EGCG, Caffeine and L theanine) in different pure organic green tea samples
Romy Aran	Physics & Space Sciences	742579 (Indiv)	Influence of Mass Time-Dependence on the Merger Rate and Gravitational Wave Power of Black Hole Binary Systems
Valentina Guo	Chemistry	049636 (Team)	The variations of molar concentration of three different phytochemicals (EGCG, Caffeine and L theanine) in different pure organic green tea samples
Nobah Islam	Animal Sciences	166545 (Indiv)	Effects of Activity on Social Learning: A Zebrafish Study
Harpreet Kaur	Engineering	329680 (Indiv)	The Development and Testing of A Solar Hydrogen Electric Anguilliform Swimmer with Pneumatic Actuation
Heeyun Kim	Chemistry	168580 (Indiv)	Detecting Odor Molecule Using Metal Quantum Dot
Ange Louis	Engineering	076686 (Indiv)	Evidence of Gain in Cleaved Facet II-VI Quantum Well Structures Through Photoluminescence Spectroscopy
Ritesh Pandohie	Physics & Space Sciences	852831 (Indiv)	The Development of a Complex Lattice Metamaterial Absorber for Potential Applications in Solar Thermophotovoltaics
Charles Phu	Chemistry	735943 (Team)	Synthesis of Triisopropylsilyl compounds for cycloaddition reactions
Lamiya Rahman	Chemistry	049636 (Team)	The variations of molar concentration of three different phytochemicals (EGCG, Caffeine and L theanine) in different pure organic green tea samples

Columbia Grammar and Preparatory School

Student Name	Category	Project ID	Project Title
Christopher Yoon	Mathematical & Computer Science	007020 (Indiv)	Finding Optimal Treatment Regimens with Reinforcement Learning based Control

Dalton School

Student Name	Category	Project ID	Project Title
Eeshan Tripathii	Environmental & Earth Sciences	287161 (Indiv)	Remediating Air Quality in Child Breathing Zone: Utilizing Long Short-Term Memory Recurrent Neural Networks Algorithms and Smart Personalized Ventilation ("Every Child Should Be Able to Breathe Clean Air")

Edward R. Murrow High School

Student Name	Category	Project ID	Project Title
Farhana Akther	Biochemistry	212076 (Indiv)	A Comparison of the Effectiveness of Ananas comosus and Opuntia as Biosorbent for Cr(VI) ions and Cu(II) ions at Different Temperature Over Time and Bioremediation for Vibrio fischeri

Dariga Amanbekova	Microbiology	458838 (Team)	The Antifungal and Antibacterial Action of Ethanol Extract of Chrysopogon zizanioides Against Aspergillus niger and Corynebacterium xerosis
Selina Ng	Microbiology	458838 (Team)	The Antifungal and Antibacterial Action of Ethanol Extract of Chrysopogon zizanioides Against Aspergillus niger and Corynebacterium xerosis
Anya Reinhart	Biochemistry	812722 (Indiv)	The Synergistic Effects of Piper nigrum L, Selenium and Panax ginseng on Curuma longa to Enhance the Inhibition of Saccharomyces cerevisiae: an Anticancer Study.
Ryan Vaz	Biochemistry	211915 (Indiv)	Optimal Growth Conditions of Chlorella sp. Under Nitrogen and Phosphorous Deficiency Environment for Biomass, Lipid and Biodiesel Production
Pansy Zhao	Microbiology	607151 (Indiv)	A Comparative Study of the Inhibitory Action of Natural Extracts on the Growth of Penicillium italicum on Citrus sinensis Exposed to Ambient Carbon Dioxide Gas

Expeditionary Learning School

Student Name	Category	Project ID	Project Title
James Hamue	Physics & Space Sciences	191328 (Team)	Interactively Exploring the Kepler Exoplanets

Fiorello H. LaGuardia High School of Music & Art and Performing Arts

Student Name	Category	Project ID	Project Title
Catherine Atalig	Physics & Space Sciences	191328 (Team)	Interactively Exploring the Kepler Exoplanets

Fontbonne Hall Academy

Student Name	Category	Project ID	Project Title
Renaldine Compere	Behavioral-Neuroscience	256221 (Indiv)	Exploring the Functional Alterations of Autism Spectrum Disorder in a Central Folate Deficient Rat Model

Forest Hills High School

Student Name	Category	Project ID	Project Title
Victoria Dyal	Behavioral-Sociology & Psychology	662858 (Team)	The correlation between Antisocial Personality Disorder and Screen time
Pasang Lama	Behavioral-Sociology & Psychology	662858 (Team)	The correlation between Antisocial Personality Disorder and Screen time

Francis Lewis High School

Student Name	Category	Project ID	Project Title
Ramisa Alam	Behavioral-Sociology & Psychology	291610 (Team)	Blurred Lines: The Effect of Consistent Outdoor Activity on Myopia
Tasneem Alam	Behavioral-Sociology & Psychology	047628 (Team)	Llamaste! The Effect of Pranayama Yoga on Concentration after Intensive Aerobic Exercise
Areej Amir	Animal Sciences	939858 (Team)	Got a Cut? Don't be Bitter! The Effects of Bitter melon on the regeneration of Dugesia tigrina.
Nathalie Arbelaez	Behavioral-Neuroscience	872287 (Team)	Teen Noise Award: The Effect of Different Types of Noise on Cognitive Function

Jeron Chacko	Plant Sciences	293405 (Team)	Lett-uce Live! The Effect of Spirulina platensis on Lettuce (Lactuca sativa L. var Buttercrunch)
Jenny Chen	Behavioral-Sociology & Psychology	047628 (Team)	Llamaste! The Effect of Pranayama Yoga on Concentration after Intensive Aerobic Exercise
Nena Chen	Environmental & Earth Sciences	037584 (Team)	The Effect of Urban Green Spaces on Biodiversity in an Urban Setting
liliana dass	Plant Sciences	247645 (Team)	The Effect of LED Wavelengths on Duckweed (Lemna minor) Growth
Haiyue Deng	Plant Sciences	206902 (Team)	Spill the Tea! The Effect of Green Tea as a Growth Supplement for Growing Kale, Brassica oleracea L., Under Different Growing Systems
Asli Erem	Plant Sciences	686152 (Team)	Lime-N-Aid! The Effects of Buffer and Fertilizer Properties of Limestone on Z-Scape Poppies Grown under Acid Rain
Mehrin Fajja	Behavioral-Sociology & Psychology	424396 (Team)	The Effect of Different Teaching Paradigms on Learning Introductory Material for a New Language
Kelvin Fang	Plant Sciences	247645 (Team)	The Effect of LED Wavelengths on Duckweed (Lemna minor) Growth
Rowan Gouda	Behavioral-Neuroscience	872287 (Team)	Teen Noise Award: The Effect of Different Types of Noise on Cognitive Function
Eleni Haralampopoulos	Behavioral-Sociology & Psychology	147827 (Team)	The Effect on Mentha piperita on the Auditory Concentration of Teens
Clara Huang	Behavioral-Sociology & Psychology	291610 (Team)	Blurred Lines: The Effect of Consistent Outdoor Activity on Myopia
Ariana Katz	Medicine & Health Sciences	874498 (Indiv)	Using Fine Needle Aspiration Cytology Smears to Personalize Lung Cancer Treatment
Jasleen Kaur	Behavioral-Sociology & Psychology	424396 (Team)	The Effect of Different Teaching Paradigms on Learning Introductory Material for a New Language
Nicole Kemmett	Behavioral-Neuroscience	872287 (Team)	Teen Noise Award: The Effect of Different Types of Noise on Cognitive Function
Burhaan Khan	Plant Sciences	073364 (Team)	The Use of Kale (Brassica oleracea) to Remove Cupric Sulfate (CuSO ₄) from Aqueous Solutions
Rafay Khan	Microbiology	020184 (Team)	The A-maze-ing Slime Mold! The Effect of Magnetic Field on the Memory and Speed of Physarum polycephalum
Justin Kleppel	Environmental & Earth Sciences	037584 (Team)	The Effect of Urban Green Spaces on Biodiversity in an Urban Setting
Tony Lin	Plant Sciences	293405 (Team)	Lett-uce Live! The Effect of Spirulina platensis on Lettuce (Lactuca sativa L. var Buttercrunch)
Felicity Liu	Animal Sciences	939858 (Team)	Got a Cut? Don't be Bitter! The Effects of Bitter melon on the regeneration of Dugesia tigrina.
Giancarlo Mainardi	Behavioral-Sociology & Psychology	424396 (Team)	The Effect of Different Teaching Paradigms on Learning Introductory Material for a New Language

Tanjina Motaleb	Microbiology	020184 (Team)	The A-maze-ing Slime Mold! The Effect of Magnetic Field on the Memory and Speed of Physarum polycephalum
Haris Music	Plant Sciences	686152 (Team)	Lime-N-Aid! The Effects of Buffer and Fertilizer Properties of Limestone on Z-Scape Poppies Grown under Acid Rain
Thumyat Noe	Plant Sciences	206902 (Team)	Spill the Tea! The Effect of Green Tea as a Folk Growth Supplement for Growing Kale, Brassica oleracea L., Under Different Growing Systems
Michael Norinskiy	Plant Sciences	206902 (Team)	Spill the Tea! The Effect of Green Tea as a Folk Growth Supplement for Growing Kale, Brassica oleracea L., Under Different Growing Systems
Prashan Peramunage	Plant Sciences	073364 (Team)	The Use of Kale (Brassica oleracea) to Remove Cupric Sulfate (CuSO ₄) from Aqueous Solutions
Anthony Persaud	Plant Sciences	073364 (Team)	The Use of Kale (Brassica oleracea) to Remove Cupric Sulfate (CuSO ₄) from Aqueous Solutions
Raisa Rahman	Microbiology	020184 (Team)	The A-maze-ing Slime Mold! The Effect of Magnetic Field on the Memory and Speed of Physarum polycephalum
Vashma Ramdass	Behavioral-Sociology & Psychology	047628 (Team)	Llamaste! The Effect of Pranayama Yoga on Concentration after Intensive Aerobic Exercise
Rohit Shinh	Behavioral-Sociology & Psychology	147827 (Team)	The Effect on Mentha piperita on the Auditory Concentration of Teens
Sarah Singh	Plant Sciences	686152 (Team)	Lime-N-Aid! The Effects of Buffer and Fertilizer Properties of Limestone on Z-Scape Poppies Grown under Acid Rain
Rudradev Singh	Plant Sciences	247645 (Team)	The Effect of LED Wavelengths on Duckweed (Lemna minor) Growth
Pritpaul Singh	Plant Sciences	293405 (Team)	Lett-uce Live! The Effect of Spirulina platensis on Lactuca sativa L. var Buttercrunch
Brian Wong	Behavioral-Sociology & Psychology	147827 (Team)	The Effect on Mentha piperita on the Auditory Concentration of Teens
Annie Xu	Behavioral-Sociology & Psychology	291610 (Team)	Blurred Lines: The Effect of Consistent Outdoor Activity on Myopia
Miriam Yushavaiev	Animal Sciences	939858 (Team)	Got a Cut? Don't be Bitter! The Effects of Bitter melon on the regeneration of Dugesia tigrina.
Daniel Yusupov	Environmental & Earth Sciences	037584 (Team)	The Effect of Urban Green Spaces on Biodiversity in an Urban Setting

Frank McCourt High School

Student Name	Category	Project ID	Project Title
Catherine Rivas	Engineering	258554 (Team)	Extube-Alert: Detecting Unplanned Extubation

High School for Health Professions & Human Services

Student Name	Category	Project ID	Project Title
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Isabelle Shiiba	Cellular & Molecular Biology	619341 (Team)	N-RAS, ERK, MPAK1, and MPAK3 Gene Expression of MCF-10A and MDA-MB-468 Cells Treated with Mitomycin C and Decarbamoyl-Mitomycin C Drugs
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High School for Mathematics, Science and Engineering @ CCNY

Student Name	Category	Project ID	Project Title
Fuad Muhit	Medicine & Health Sciences	547393 (Team)	The Imperativeness of Validating Variants detected through Whole Exome Sequencing in Gynecological Tumor Specimens in Cancer Research
Sadek Munawar	Cellular & Molecular Biology	802469 (Indiv)	Histological and Molecular Effects of Cardiac Progenitor Cells on Human Engineered Cardiac Tissues
Stilianos Papazahariou	Cellular & Molecular Biology	927230 (Indiv)	The Role of FOXO1 Mutations in B-cell Lymphomagenesis
Afsana Rahman	Behavioral-Neuroscience	592281 (Indiv)	Validating the Chronic Social Defeat Stress paradigm as a model of depressive-like behavior in C57BL/6 mice for assessing the effects of depression on social hierarchy
Diego Rodriguez	Medicine & Health Sciences	475712 (Indiv)	Combined DYRK1A Inhibition and GLP-1R Activation Induces In Vivo Proliferation of Human Beta Cells
Alexander Solivan	Medicine & Health Sciences	547393 (Team)	The Imperativeness of Validating Variants detected through Whole Exome Sequencing in Gynecological Tumor Specimens in Cancer Research

Horace Mann School Upper Division

Student Name	Category	Project ID	Project Title
Malhaar Agrawal	Medicine & Health Sciences	882459 (Indiv)	Prostate Carcinomas in African Americans Have Distinct miRNA Expression and Biological Markers for Poor Prognosis
Richard Han	Microbiology	662917 (Indiv)	Investigating the Role of Fusobacterium nucleatum in Esophageal Cancer
Brian Wu	Physics & Space Sciences	577910 (Indiv)	A Tour of Tatooine: Discovery of the First-Ever Circumbinary Planet Detected Using Doppler Spectroscopy

Hunter College High School

Student Name	Category	Project ID	Project Title
Elizabeth Argiro	Microbiology	061588 (Indiv)	Discovery and Characterization of Novel Arthropod-Specific RNA Viruses
Ryan Bose-Roy	Medicine & Health Sciences	654102 (Indiv)	Novel Warning Mechanism for At-Risk Stroke and Epilepsy Patients through Functionalized Hydrogel-Gold Nanoparticle Composites
Laveda Chan	Cellular & Molecular Biology	407654 (Indiv)	A novel Taqman genotyping approach for pre-screening CRISPR-cas9
Sai Vishudhi Chandrase	Medicine & Health Sciences	332324 (Indiv)	Novel Machine Learning Model Predicting Recurrence of Congestive Heart Failure and Identifying New At-Risk Demographics
Madeline Cheshire	Medicine & Health Sciences	089179 (Indiv)	Peripheral Blood Gene Expression Profiles Linked to Mitochondrial Pathways in Neuropsychiatric Disorders

William Das	Mathematical & Computer Science	209412 (Team)	Automated Early Detection of Parkinson's Disease through Machine Learning Analysis of Typing Interactions
Joya Debi	Engineering	532277 (Indiv)	Combating the Inflammatory Response in Ischemic Stroke Patients with a Dynamic Hydrogel Containing a Novel Drug Release Mechanism
Ari Firester	Engineering	122186 (Indiv)	WormBot: Mimicking Earthworm Locomotion
Maria Geogdzhayeva	Environmental & Earth Sciences	092008 (Indiv)	Evaluating Severe Weather Prediction Methods from Thermodynamic Profiles
Shubh Khanna	Mathematical & Computer Science	209412 (Team)	Automated Early Detection of Parkinson's Disease through Machine Learning Analysis of Typing Interactions
Jeremy Kim	Mathematical & Computer Science	527492 (Indiv)	DEEPDOCTOR: A NOVEL DEEP LEARNING FRAMEWORK FOR EFFECTIVE AND RAPID MULTIPLE SCLEROSIS LESION SEGMENTATION
Sophia Li	Medicine & Health Sciences	499588 (Indiv)	Dual Targeted Chimeric Antigen Receptor T Cells: A Novel Immunotherapy for Multiple Myeloma
Helen Lyons	Environmental & Earth Sciences	519511 (Indiv)	Spatial and Morphological Analysis of Cryoconite Holes in Kangerlussuaq, Greenland Using Unmanned Aerial Vehicle Imaging and Automated Software Recognition
Krupa Sekhar	Medicine & Health Sciences	659168 (Indiv)	Determining Genes Involved in the Inverse Relationship Between Cancer and Alzheimer's Disease
Paige Sherman	Chemistry	489149 (Indiv)	The Effects of a Silica Coating on the Aggregation of Gold Nanoparticles
Benjamin Slater	Chemistry	225443 (Indiv)	A Two-Step Synthesis of a Novel, Internally-Protected Indole Scaffold for Drug Synthesis

Institute for Collaborative Education

Student Name	Category	Project ID	Project Title
Lila Cooper	Behavioral-Sociology & Psychology	514523 (Indiv)	The Effect of Exposure to Differing Body Shapes upon Female Adolescent Weight Bias and Body Image
Josephine Ingall	Behavioral-Sociology & Psychology	515546 (Team)	He Said, She Said, I Said? The Persistence of the Memory Conformity Effect in Adolescents' Event Reports
Asha Karmen-Chan	Behavioral-Neuroscience	514273 (Indiv)	The Effect of Sustained Radiofrequency Radiation Exposure on Neurodegenerative Markers in Drosophila
Katya Naphtali	Environmental & Earth Sciences	514301 (Indiv)	Utilizing Earthworm Abundance and Species Diversity as Indicators of Soil Health in Greenpoint, Brooklyn.
Jules Walzer-Goldfeld	Behavioral-Sociology & Psychology	514306 (Indiv)	The Effects of Aggressive Stimuli on Impulsivity and Inhibitory Control in Adolescents.
Andy Zheng	Behavioral-Sociology & Psychology	515429 (Indiv)	The Effect of a Modified Vivid Counterstereotypic Scenario Intervention Method on Implicit Racial Bias and Neural Activity During an Affective Lexical Priming Score Task

Institute for Health Professions at Cambria Heights

Student Name	Category	Project ID	Project Title
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Niouma Semega	Engineering	542874 (Indiv)	An Immersive Heavy Metal and Nitrate Filter for Bodies of Water
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Loyola School

Student Name	Category	Project ID	Project Title
Daniela Pierro	Animal Sciences	576307 (Indiv)	Gene Expansion or Gene Regulation? The Evolution of Diet Breadth in Lepidopteran Crop Pests

Magen David Yeshiva High School

Student Name	Category	Project ID	Project Title
Marco Halabi	Medicine & Health Sciences	507744 (Indiv)	The Effect of Metformin on Ultraviolet Exposed Daphnia Magna
David Salameh	Environmental & Earth Sciences	049268 (Indiv)	An Analysis of Street Dust for the Presence of Toxic Heavy Metals

Manhattan Center for Science & Mathematics

Student Name	Category	Project ID	Project Title
Jose Llenas	Behavioral-Neuroscience	235632 (Team)	Thalamic Striatal Circuitry Underlying Cocaine Reward
YOLFRANKCIS MENDE	Behavioral-Neuroscience	235632 (Team)	Thalamic Striatal Circuitry Underlying Cocaine Reward

Midwood High School @ Brooklyn College

Student Name	Category	Project ID	Project Title
Larissa Brijmohan	Animal Sciences	875387 (Indiv)	The effect of an audience on monk parakeet nest construction effort
Maryam Khan	Behavioral-Neuroscience	177565 (Indiv)	Neural Ensembles in the CA1 region of the mouse Hippocampus
Rana Mohamed	Engineering	152719 (Indiv)	Energy Efficient Design for a Partially Actuated Passive Walker
Fizza Nayab	Animal Sciences	548874 (Indiv)	Monk to Monk Communication in Brooklyn: Do Monk Parakeet (<i>Myiopsitta monachus</i>) calls influence conspecific behaviors?
Annabel Xie	Animal Sciences	875419 (Indiv)	Monk Parakeets (<i>Myiopsitta monachus</i>) Prefer to Nest in Greenspace in New York City Compared to Other Types of Land

New Dorp High School

Student Name	Category	Project ID	Project Title
Daniella DiPeri	Behavioral-Neuroscience	852637 (Team)	How do different genres of music affect cognitive performance among different age groups?
Alice Petrikovsky	Behavioral-Neuroscience	852637 (Team)	How do different genres of music affect cognitive performance among different age groups?
Noel Prakasam	Environmental & Earth Sciences	606096 (Indiv)	How does UVA radiation affect tardigrades?
Isabella Priven	Behavioral-Neuroscience	852637 (Team)	How do different genres of music affect cognitive performance among different age groups?

Packer Collegiate Institute

Student Name	Category	Project ID	Project Title
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Luca Conetta	Engineering	249906 (Indiv)	Design and Construction of a Functional Impact Pendulum
Leo Portnoy	Cellular & Molecular Biology	297235 (Indiv)	Correlating Peristalsis to Electrical Signals in Physarum polycephalum's network
Zoe Rutkovsky	Physics & Space Sciences	419808 (Indiv)	Information Entropy with Computer Generated Particle Images
Joshua Wittstein	Behavioral-Sociology & Psychology	044979 (Indiv)	Bilingualism and Transcranial Direct Current Stimulation in the Acquisition and Production of Non-Native Consonant Clusters

Poly Prep Country Day School

Student Name	Category	Project ID	Project Title
Gabriel Cannavo	Engineering	447231 (Indiv)	Temperature and Its Affect on the Production of Voltage in a Microbial Fuel Cell

Queens High School for Sciences @ York College

Student Name	Category	Project ID	Project Title
Christopher Ambrus	Physics & Space Sciences	191328 (Team)	Interactively Exploring the Kepler Exoplanets
Sanurag Barobhuiya	Environmental & Earth Sciences	124895 (Team)	The Effect of Coconut Coir versus Peat when Growing Solanum Lycopersicum
Joseph Chen	Mathematical & Computer Science	823400 (Indiv)	Capsule Networks for the Automated Segmentation of Left Atrium in Cardiac MRI
Jasmine Chiou	Environmental & Earth Sciences	124895 (Team)	The Effect of Coconut Coir versus Peat when Growing Solanum Lycopersicum
Chelsea Goberdhan	Environmental & Earth Sciences	157342 (Team)	The Effectiveness of the Microalgae, Chlamydomonas, in Remediating Phosphate in Wastewater
Jannat Hossain	Environmental & Earth Sciences	157342 (Team)	The Effectiveness of the Microalgae, Chlamydomonas, in Remediating Phosphate in Wastewater
Suha Hussain	Mathematical & Computer Science	864622 (Indiv)	Detecting Privacy Violations in Children's Apps Using HPCs
Shreya Kaveti	Plant Sciences	747782 (Team)	The Effect of Extracting Lignin Like Compounds from Chlorella Green Algae and Oscillatoria Blue green Algae on the Production of an Eco-friendly Paper Source
Yashaswi Manneru	Plant Sciences	747782 (Team)	The Effect of Extracting Lignin Like Compounds from Chlorella Green Algae and Oscillatoria Blue green Algae on the Production of an Eco-friendly Paper Source
Dina uddin	Behavioral-Neuroscience	843249 (Indiv)	The Effect of The Neurotoxin Streptozotocin on Memory Using a Rat Model of Sporadic Alzheimers Disease

Queens Metropolitan High School

Student Name	Category	Project ID	Project Title
Olivia Meyer	Behavioral-Sociology & Psychology	972611 (Indiv)	The Effects of Gender on Memory in Young Adults

Regis High School

Student Name	Category	Project ID	Project Title
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Austin Crouchley	Engineering	735932 (Indiv)	Keeping Solar Modules Cool: A Comparison of Thermal Conductivity of Copper and Aluminum Cooling Coils for Improved Efficiency and Longevity of Solar Photovoltaics with Cogeneration of Hot Water
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Riverdale Country School

Student Name	Category	Project ID	Project Title
Tejasri Vijayakumar	Biochemistry	737002 (Indiv)	Structural Investigation of a Novel Pyrrolysyl tRNA - 70S Ribosome Complex

Saint Francis Preparatory School

Student Name	Category	Project ID	Project Title
Abigail Bossa	Medicine & Health Sciences	440142 (Indiv)	Understanding the Variability of Regional Cerebral Glucose Metabolic Activity in Aged Human Brains
David Murtha	Cellular & Molecular Biology	311931 (Indiv)	Generation of a RUNX1 lentiviral vector and applications to leukemia research
Alex Soohoo	Behavioral-Sociology & Psychology	890024 (Indiv)	Developmental Evaluation of the Story Retell Task in Early Dementia Patients with Mild Cognitive Impairment

Saint Joseph By the Sea High School

Student Name	Category	Project ID	Project Title
Christina Knapski	Behavioral-Neuroscience	991689 (Team)	Planarian Socials: Mapping planarian brain activity and behavior when meeting new friends
Brianna Kolsin	Behavioral-Neuroscience	991689 (Team)	Planarian Socials: Mapping planarian brain activity and behavior when meeting new friends
Sabrina Ortiz	Behavioral-Neuroscience	991689 (Team)	Planarian Socials: Mapping planarian brain activity and behavior when meeting new friends
MaryGrace Scotto	Behavioral-Neuroscience	883320 (Indiv)	Surprise, planarians have myelin! Potential new high throughput model for studying multiple sclerosis and other demyelinating diseases.

SAR High School

Student Name	Category	Project ID	Project Title
Dov Shalev	Engineering	928721 (Indiv)	Proposed alternative train control system for the NYC subway to improve its speed, maximum capacity, and effectiveness while meeting the constraints of a 24/7 schedule and its underground location.

Staten Island Technical High School

Student Name	Category	Project ID	Project Title
Daniel Indictor	Engineering	748164 (Team)	A Comparison of EOG-enabled Assistive Virtual Keyboards: 8-gram Linear Grid, RNN Linear Grid, T9-like Typing Grid
Debby Lin	Cellular & Molecular Biology	183247 (Indiv)	Analysis of MARCH5 Mutants in Response to Oxidative Stress
Eric Stein	Mathematical & Computer Science	307643 (Indiv)	Detection of Verbal Bullying Using an Acoustic Classifier Algorithm
Dea Turashvili	Behavioral-Sociology & Psychology	404858 (Indiv)	The Effect of Media Literacy and Internet Usage on the Awareness of Social Media Algorithms

Dominick Villamor	Engineering	748164 (Team)	A Comparison of EOG-enabled Assistive Virtual Keyboards: 8-gram Linear Grid, RNN Linear Grid, T9-like Typing Grid
Nicole Yatskar	Cellular & Molecular Biology	303900 (Indiv)	Monocyte and Leukocyte Platelet Aggregates in MINOCA and MI-CAD Patients

Stuyvesant High School

Student Name	Category	Project ID	Project Title
Fiona Cai	Mathematical & Computer Science	666835 (Indiv)	eML: Improving the Efficiency of Clinical Trial Recruitment using Electronic Health Record (EHR) data and Machine Learning
Mohammed Haque	Chemistry	735943 (Team)	Synthesis of Triisopropylsilyl compounds for cycloaddition reactions
Han Namgoong	Mathematical & Computer Science	052195 (Indiv)	Train Dwell Time Modeling Using NetLogo and Reduction Approach
Eliza Spinna	Behavioral-Sociology & Psychology	112077 (Indiv)	Disparate Treatment of Male and Female High School Public Forum Debaters: An Analysis of Judge Feedback
Bhavin Tanna	Chemistry	735943 (Team)	Synthesis of Triisopropylsilyl compounds for cycloaddition reactions
Maxim Vaysburd	Medicine & Health Sciences	746175 (Indiv)	Identifying Epigenetic Signature of Breast Cancer with Machine Learning

Townsend Harris High School

Student Name	Category	Project ID	Project Title
Efaz Ahmed	Animal Sciences	389596 (Team)	The Effects of Acesulfame Potassium on Daphnia
Esther Chai	Cellular & Molecular Biology	471554 (Indiv)	Identification of GREB1 as a Potential Mutant Estrogen Receptor Coactivator in Breast Cancer
Josephine Chen	Plant Sciences	029026 (Team)	The Effect of 5%, 10%, 15%, and 20% Niacin Concentrations on the Growth of Phaseolus coccineus
Ariba Khan	Plant Sciences	029026 (Team)	The Effect of 5%, 10%, 15%, and 20% Niacin Concentrations on the Growth of Phaseolus coccineus
Lucia Lin	Chemistry	313471 (Indiv)	Enhancing Proton Exchange Membrane Fuel Cell Performance by Coating Nafion 117 Membranes with Graphene Oxide at Various Surface Pressures
Tirthraj Patel	Engineering	258554 (Team)	Extube-Alert: Detecting Unplanned Extubation
Saaya Patel	Microbiology	573569 (Indiv)	Effects of Lactic Acid and Acetic Acid on the Growth Inhibition of Escherichia coli
Pooja Suganthan	Behavioral-Sociology & Psychology	870492 (Indiv)	Acculturation and the Food Label Use of South Asian Adults in the United States
Westar Zong	Animal Sciences	389596 (Team)	The Effects of Acesulfame Potassium on Daphnia

Trinity School

Student Name	Category	Project ID	Project Title
Katelyn Lee	Cellular & Molecular Biology	707124 (Team)	Promoter methylation of differentially expressed sod1 in acetaminophen-exposed D. rerio embryonic fibroblast cells

Tyler Masuyama	Cellular & Molecular Biology	707124 (Team)	Promoter methylation of differentially expressed sod1 in acetaminophen-exposed D. rerio embryonic fibroblast cells
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Urban Assembly New York Harbor High School

Student Name	Category	Project ID	Project Title
Cyd Bloomfield	Environmental & Earth Sciences	285924 (Indiv)	Sequencing New York Harbor: Effects of Salinity Gradients on Biodiversity

Young Women's Leadership School - Harlem

Student Name	Category	Project ID	Project Title
Kymerlee Corleto	Environmental & Earth Sciences	560922 (Team)	Eco-Friendly Habitat Restoration: Using Photo-Deprivation to Eradicate Phragmites australis and to Promote Native
Jasmine Maturana	Environmental & Earth Sciences	560922 (Team)	Eco-Friendly Habitat Restoration: Using Photo-Deprivation to Eradicate Phragmites australis and to Promote Native
Yhajaira Robles	Environmental & Earth Sciences	560922 (Team)	Eco-Friendly Habitat Restoration: Using Photo-Deprivation to Eradicate Phragmites australis and to Promote Native