



LI Science & Engineering Fair, Inc.

Promoting Excellence in Scientific Inquiry and Discovery in LI Schools

LISEF 2015 Grand Award Winners

	Award	Name	School	Title
Animal Sciences	First	Justin Chad Weissberg	Long Beach High School	<i>Oyster Reef Sustainability, A Piece of The Puzzle: Gamete Viability in Crassostrea virginica; Determining Temporal and Concentration Constraints</i>
	Second	Yianni Flouskakos	Garden City High School	<i>Hyperactivity in Drosophila melanogaster in Response to High Fructose Corn Syrup is Mediated by Addiction Pathways</i>
	Second	Graelin H. Mandel	John L. Miller Great Neck North High School	<i>Validating the Royal in Royal Jelly: The Effect of Royal Jelly Consumption on Short-term Memory of Drosophila melanogaster</i>
	Third	Samantha Grace DeRosa	Smithtown High School West	<i>Evolutionary History of Smell in Mammals Using Genetics and Morphology</i>
	Third	Abishana Ilanges	Oceanside High School	<i>Investigating the Relationship between Alcohol/Alcohol Metabolism and the Hippo Tumor Suppressor Pathway</i>
	Honorable M	Courtney Cheng	Smithtown High School East	<i>Extreme Dietary Adaptations in Nectar-Feeding Bats: Implications of Type II Diabetes</i>
	Honorable	Stephen M	Smithtown High	<i>The Effect of Nicotine Exposure During</i>

	M	Kyranakis	School West	<i>Development on Locomotive Spontaneity in Nematostella vectensis</i>
	Honorable M	William Paraszczuk, Nicholas Henry Rossetti	Valley Stream North High School	<i>The Development of a Standardized Casting Technique to Assess the Population of Malaclemys Terrapin at Jamaica Bay Wildlife Refuge</i>
	First	Jessica Li Huang	Jericho High School	<i>Predicting Fluid Intelligence from Resting-State Neural Connectivity</i>
	First	Aansh Shah	Roslyn High School	<i>Sticks and Stones May Break My Bones: Middle School Students' Perceptions of Bullying</i>
	Second	Emily Grace Faughnan	Sayville High School	<i>Trends Analysis of Missing and Exploited Children in the New England and New York Metropolitan Region, USA Using Geospatial Tools</i>
	Second	Saira Khan	Plainview Old Bethpage JFK High School	<i>Recognition Memory: Optimization of an Assay and Altered Performance in Mice Carrying a Schizophrenia Susceptibility Genetic Mutation</i>
	Second	Ien Li	Jericho High School	<i>Statistical Modeling of Major Depression: Bridging the Gap between Brain and Behavior</i>
	Second	Sydney Paige Schwartz	Plainview Old Bethpage JFK High School	<i>Manipulating the Art of Rhetoric: The Effectiveness of Opposing Argument Styles on Message Persuasion</i>
	Third	Amelia Dawn Channin	Plainview Old Bethpage JFK High School	<i>The Impact of Binge TV Watching on the Formation of Para-social Relationships and Social Connectedness</i>

Behavioral and Social Sciences	Third	David Michael Jaslow	Roslyn High School	<i>Saving for the Good Life: A Study of How to Increase Savings For Retirement</i>
	Third	Grace Karen Lee	Manhasset High School	<i>Effects of Memantine on Novelty Recognition and Social Interaction in Novel Mouse Model Dtnbp1-sdy-Btlr</i>
	Third	Jessy Lin	John L. Miller Great Neck North High School	<i>Top-down and bottom-up interaction in spoken word recognition</i>
	Third	Rachel Lauren Mashal	Bellmore JFK High School	<i>Food-Specific Intolerance of Uncertainty and Eating Disordered Behaviors in a Non-Clinical Sample</i>
	Third	Jack Robbins	Syosset High School	<i>A Novel Calculation of US Congressional Localized Shortest Split Line Districts and its Implications</i>
	Third	Sage Rosenthal	John L. Miller Great Neck North High School	<i>Perceiving gustatory-olfactory Flavor mixtures: Effects of the olfactory components on sweetness and sourness</i>
	Honorable M	Thomas Paul Beier	Plainedge High School/ Research Advisor	<i>Mass Incarceration in the United States</i>
	Honorable M	David Harrison Braunstein	Sanford H. Calhoun High School	<i>Implementing Disease Status and COMT Genotype to Analyses of Frontal Lobe Deficits in Parkinson's Patients</i>
	Honorable M	Alexandra Jessie Chan	Syosset High School	<i>Is Supervision Necessary for Associative Learning?</i>
	Honorable M	Donnell Jerrard Perkins	Freeport High School	<i>Using Drosophila Melanogaster as a model animal for Alzheimer's Disease</i>
	Honorable M	Julia Ann Sternberg	Plainview Old Bethpage JFK High School	<i>The Impact of Reading Behaviors on Adolescents'™ on Theory of Mind</i>

Biochemistry	First	Aaron Henry Wang	Jericho High School	<i>Benzalkonium Chloride as a Preservative: Examining Harmful Implications, Toxic Inhibition, and Potential Alternatives</i>
	Second	Bongseok Jung, Joshua He	Herricks High School	<i>A Novel Proposal for Nonalcoholic Steatohepatitis: Ubiquitous Compound 4-Methylimidazole Promotes Both the Classic Hallmarks of NASH and a Novel Immunoediting Pathway to Elicit Immune-Mediated Liver Damage</i>
	Third	Abrar Nadroo Nadroo	Syosset High School	<i>Toward a Novel Treatment for Corneal Fibrosis: Establishing a Comprehensive Biochemical Model of the Corneal Keratocyte</i>
	Third	Shamik Paresh Shah	Jericho High School	<i>Vitamin D-Mediated Repression of EMT: Implications for Metastatic Cancer</i>
	Third	Jonathan S Spiegel	W.C. Mephram High School	<i>CSF P-tau 231 outperforms P-tau 181 in the differentiation of Alzheimer's from healthy controls: support of P-tau 231's primacy in AD tauopathy</i>
	Honorable M	Monica Beeferman	John L. Miller Great Neck North High School	<i>Intracellular Crosstalk in Protein Aggregation of E. coli Cells: An examination of the proteostasis network</i>
	Honorable M	Austen Gregory Te	Manhasset High School	<i>Investigation of the Effect of Rapamycin on Insulin Sensitivity and Glucose Tolerance in Various Strains of Inbred Mice</i>
				<i>The Importance of Endocytosis to Neuregulin1 Back</i>

Cellular and Molecular Biology	First	Scott Massa	Commack High School	<i>Signaling: Implications in Neuropsychiatric and Neurodegenerative Disorders</i>
	First	Jay Wolf Zussman	William A. Shine Great Neck South High School	<i>Zip1 C-terminal phosphorylation promotes Zip1-Sgs1 interaction in meiotic cells</i>
	Second	Ritayan Chakraborty	Syosset High School	<i>Revisiting the Promethean Dream: Activation-induced Cytidine Deaminase and its Role in the Induction to Pluripotency</i>
	Second	William Max Rosencrans	North Shore High School	<i>Stable Nitrogen Isotopes can be Used to Measure Long Term TOR Signaling Activity in Drosophila melanogaster</i>
	Third	Harold Ekeh	Elmont Memorial High School	<i>The role of PARP-1 in MeHg-induced dopaminergic dysfunction and mitochondrial DNA depletion</i>
	Third	Mahip Grewal	Roslyn High School	<i>Characterization of the Level of UHRF1 Overexpression and How it Correlates with Cell Division</i>
	Third	Shweta Lodha	Herricks High School	<i>Angiotensin II Type I Receptor Blockade Provides Kidney Protection Through Vitamin D3 Regulation: A Novel Mechanism of Action</i>
	Third	Abigail Rose Wax, Karena Devi Etwaru	Harborfields High School	<i>Intercellular Communication and Enhanced Connexin Expression in Cx43 HeLa Cells Exposed to Graphene</i>
	Third	Crystal Zheng Zheng	Jericho High School	<i>Implication in impaired fear extinction: BDNF Val66Met prodomain's role in mature hippocampal dendritic spine collapse</i>

	Honorable M	Daniel Zachary Bronheim	North Shore Hebrew Academy High School	<i>Inhibition of Transient Receptor Potential Melastatin Seven Current by the Local Anesthetic Bupivacaine in TRPM7-overexpressed HEK293 Cells</i>
	Honorable M	Logan Max Eisner	Bellmore JFK High School	<i>The Balance of TIMP-1 and MMP-9 in the Regulation of Corticosteroid Resistant Autoimmune Inner Ear Disease Patients</i>
	Honorable M	Lopa Shailesh Shah	Herricks High School	<i>A Potential Signaling Pathway between A2A Receptor and Semaphorin 4D</i>

Chemistry	First	Pavithran T. Ravindran	W Tresper Clarke High School	<i>Formation of Poly(3-hydroxybutyrate) Inclusion Compounds with Urea and Thiourea</i>
	Second	Jessica Kim	Manhasset High School	<i>Enhancing the Power Conversion Efficiency of Inverted Organic Photovoltaics with Gold Functionalized Reduced Graphene Oxide and Phase-Separated Polymer Morphology</i>
	Third	Typher Yom	Manhasset High School	<i>Fabrication of N-Doped Graphene Coated over Silicon Carbide as a Cathode in Improving Metal Air Cells via the Acidic 4-Electron Pathway Oxygen Reduction Reaction</i>
	Honorable M	Sabrina Wei Qi	Harborfields High School	<i>Synthesis of Silver Nanoparticles Via Tollen's Reagent and Poly(glycidyl methacrylate)</i>
	Honorable M	Ilana Chaya Radinsky	Stella K. Abraham High School for Girls	<i>Effects of Carbon Chain Length in Thiol-Functionalized Gold Nanoparticles Coating a Nafion® Membrane on PEM Fuel Cell Efficiency</i>

Computer Science	First	Justin Barish Barish	Kings Park High School	<i>A Hand-centric Gestural Interface for 3D Navigation and Interaction in Visualization</i>
	Second	arjun Kapoor, Sahil Abbi	The Wheatley School	<i>The Construction of Low Entropy Quasi-Optimal Parallel Computing Network Topologies</i>
	Third	Gary Liang Ge	Ward Melville High School	<i>Action Classification in Still Images Using Human Gaze</i>
	Third	Aspyn Cole Palatnick	Cold Spring Harbor High School	<i>iGenomics: Mobile DNA Sequence Analysis</i>
	Honorable M	Ridoy Majumdar	Syosset High School	<i>A Platform for Brain-Guided Prosthetics: Supervised Machine Learning via Near-Infrared Spectroscopy of DL-PFC Hemodynamics.</i>
	Honorable M	Eric Alan Riesel	Oceanside High School	<i>Genome-Scale Identification of Regulatory Networks Through Modular Response Analysis of LINCS L1000 Data</i>
Earth & Planetary Science	First	Benjamin Drew Senzer	Syosset High School	<i>Using Geochemical Mapping of Marsh Foraminifera Tests to Analyze Cytoplasmic Deposition of Trace Elements</i>
	Second	Beatrice Lauren Brown	Bellmore JFK High School	<i>Forecasting Hurricane Hazards for the Long Island Area</i>
	Third	Shreeya Gouri Panigrahi	Sayville High School	<i>Multivariate analysis of soil pH, forest structure, and human disturbance in the glacial outwash plain, Long Island, New York</i>
	Honorable	Emily Lynn	Smithtown High	<i>Determining the Calcium-Aluminum Ratio</i>

	M	Durcan	School West	<i>of Long Island Soils Affected by Acid Rain</i>
	Honorable M	Danah Han, Brian Oh, Christopher Chen	Half Hollow Hills High School West	<i>Causes of relative sea level variation along the North American East Coast</i>
Energy & Transportation	First	Aidan Rhys Dwyer	Northport High School	<i>Fueling the world one layer at a time: improving the efficiency of Grätzel cell with nanotechnology</i>
	Second	Soram Kim, Tatum Mae Ogata	Half Hollow Hills High School West	<i>Enhancing Smart Window Design Through the use of Alternative Electrolytes to Augment Infrared Reflectance</i>
	Third	Lee Jared Blackburn, Arthur Chen, Justin Daniel Lish	Lawrence High School	<i>Optimization of Catalytic Activity in Polymer Electrolyte Membrane Fuel Cells Utilizing Metal-Functionalized Graphene Oxide/Partially Reduced Graphene Oxide Coatings</i>
	Honorable M	Anne Chen	Farmingdale High School	<i>Development of Au/ZnO Catalyzed Fuel Cells</i>
	Honorable M	Iram Rahman, Anthony Christopher Mulieri, Karl Robert Mulieri	Sachem High School East	<i>Electrical Yield from Microbial Digestion of Carbohydrates in a Mediated Microbial Fuel Cell</i>
	First	David Li	Commack High School	<i>A Device for the Tracking of At-Home Medical Equipment during Natural Disasters</i>
	Second	Shakeel Faizy, Drew Kaplan	Plainview Old Bethpage JFK High School	<i>Bathroom Engineered for Those Who Are Incapable of Self Hygiene</i>
	Third	Jacob Basaleli	North Shore Hebrew Academy High School	<i>The Tire Blowout Recovery System</i>
				<i>Advancing Energy Storage Materials Through the Development of High</i>

Engineering: Electrical & Mechanical	Third	Liana J. He	Half Hollow Hills High School West	<i>Capacitance NiCo2O4 Reticulated Electrodes and Quasi-aligned Graphene Fibers with Enhanced Thermal and Electrical Conductivities: A Two Year Study</i>
	Honorable M	Elan Gideon Sharony, Jordan Adam Brodsky, Nicolas Frank Casazzone	Half Hollow Hills High School West	<i>Optimizing Yield Strength and Damage Tolerance of 3D-Printed Structural Components Through Multiple Post-Processing Techniques for Application in Aeronautical and Civil Engineering</i>
	Honorable M	Jim Cheng Tse	Herricks High School	<i>The Effects of Biomechanical Dosage on Osteoarthritis Knee Bracing Using a Novel Total Knee Replacement Prosthesis (e-tibia) to Measure Compressive Joint Forces In Vivo</i>

Engineering: Materials & Bioengineering	First	Danny Huang	Jericho High School	<i>Kinetic Modeling of Radiotracer [¹¹C]OMAR</i>
	Second	Asad Marghoob	Half Hollow Hills High School West	<i>The Effects of Electropulsed Fibers on Elongation and Alignment of Schwann Cell Cultures</i>
	Third	Jada Lauren Nantona Garzon	W Tresper Clarke High School	<i>The Effect of Quercetin on Fin Regeneration and Wound Healing in Danio rerio</i>
	Third	Andrew Jaesang Kim	Commack High School	<i>The Study of Bacterial Cellulose Membranes for Air Filtration Masks</i>
	Third	Vivek Nainesh Shah	Lynbrook Senior High School	<i>A Novel Approach to Accurate Scalp Sensor Localization: A 3D Printed Head Frame Methodology</i>
	Honorable M	Elaina Eva Zodiatis, William Berger	Smithtown High School East	<i>Halogen Free Flame Retardant Polymer Nanocomposites</i>

Environmental Management	First	Steve Daikai Zheng	Jericho High School	<i>Synthesis of a novel metal organic framework with a pcu topology for CO₂ separation in CCS</i>
	Second	Kimberly Alexis Te, Christine Yoo	Manhasset High School	<i>Optimizing Electrical Output and Hydrocarbon Biodegradation Capabilities of Sediment Microbial Fuel Cells through Novel Anode Designs</i>
	Third	Jonathan Parker Kapilian, Alexandra Shana Kapilian	Long Beach High School	<i>The Effect of Population Density on Carbon Dioxide Emissions Per Capita</i>
	Third	Sanaa Sohail Khan, Leah Nalini Ramkelawan	East Meadow High School	<i>The Material Engineering and Testing of PETE(polyethylene terephthalate) and HDPE(high density polyethylene) Plastic and Concrete Compounds Infused with Various Mosquito Insecticide and Repellent Substances</i>
	Honorable M	Sarah Elizabeth Sandler	Sanford H. Calhoun High School	<i>The Human Dimensions of Horseshoe Crab Management and Conservation</i>
	Honorable M	Sai Karan Reddy uppugalla	Hauppauge High School	<i>Using Advanced Digital Imaging(ADI) software to evaluate the impact of and recovery from natural disasters.</i>
	First	Jason Christopher Fiacco, Kevin Sadhu	Manhasset High School	<i>Counteracting Pb²⁺ induced Neurodegeneration: A Chemical and Genetic approach towards Enhanced Synaptic plasticity</i>
	Second	Monika Dharia	Mineola High School	<i>Evaluating the estrogenicity, androgenicity, and toxicity of urban-use pesticides using a Saccharomyces</i>

Environmental Sciences				<i>cerevisiae</i> bioluminescent reporter system
	Second	Kevin W Riegel	West Islip High School	<i>Denitrification of Long Island's Drinking Water</i>
	Third	Akan Brown	Elmont Memorial High School	<i>Detection of Engineered Metal Oxide Nanoparticles in Natural Soil Matrices: A Novel Spectrophotometric and Selective Flotation Approach</i>
	Third	Alessandra Bruno	Kings Park High School	<i>Abiotic and Biotic Factors that Led to the Extirpation of Chiroptera (Bats) in the Caribbean</i>
	Third	Anja Schaefer Kenagy	Half Hollow Hills High School East	<i>Investigation of Trophic Levels Demonstrates Excessive Species-Specific Mercury Biomagnification in Pelagic Predators</i>
	Third	Sabina Sethi Unni	Paul D Schreiber High School	<i>The abundance and distribution of the ecologically important nitrogen-fixing cyanobacteria Trichodesmium sp. in the North Pacific and North Atlantic Oceans</i>
	Honorable M	Olivia Rose Kaczmarek	Sayville High School	<i>Analysis of mitochondrial DNA of the southern flying squirrel (Glaucomys volans) to assess the frequency of micro-mutations related to site contamination</i>
	Honorable M	Savannah Lynne Kile, Leah Accardi Shokrian	Long Beach High School	<i>Measuring Parasitic Pleurogonius malaclemys Prevalence in Ilynessa obsoleta Populations to Assess Malaclemys terrapin Distribution in the Western Bays</i>
	Honorable M	Sarah Shuyi Wong	Brentwood High School	<i>Mortality Patterns in a Gall Maker and its Effect on Predator Abundance and Diversity</i>

Mathematical Sciences	First	Daniel M Hanover	John L. Miller Great Neck North High School	<i>The Base Dependent Behavior of Kaprekar's Routine: A Theoretical and Computational Study Revealing New Regularities</i>
	Second	Sarah Alyse Jacobs, Luke Farrell	Hauppauge High School	<i>Machine Learning's Application to Epidemiological Surveillance: A More Effective Means to Predict the Spread of the Influenza Virus</i>
	Third	Arjun ,Mehrotra Narayan Mehrotra	Syosset High School	<i>A comparison of anatomical covariance brain patterns between preterm and term born individuals</i>
	Third	Mehtaab Singh Sawhney	Commack High School	<i>A Study of Length Equivalence Classes on a Pair of Pants</i>
	Honorable M	Richie Lee	Jericho High School	<i>Testing for Normality: A New Test Based on a Shapiro-Wilk Statistic</i>
	Honorable M	Craig Vande Stouwe	Mineola High School	<i>Creating a System of Angle and Distance Sensitive Ratios for Facial Recognition</i>
	First	Abhinav Talwar	Herricks High School	<i>Evaluating the Capacity to of NO-releasing Nanoparticles to be used in conjunction with Earthworm Erythrocrurin and maintain NO bioactivity</i>
	First	Jinyu Wu	Manhasset High School	<i>Repurposing CNI-1493 to Treat Alzheimer's Disease: Attenuation of Intracellular Amyloid Beta Toxicity in vitro and in vivo</i>
	Second	Kanav Gupta Gupta	Jericho High School	<i>Quizartinib (AC220) reverses multidrug resistance (MDR) by inhibiting the efflux activity of ABCB1 and</i>

Medicine & Health Sciences				<i>ABCG2 transporters</i>
	Second	Alan Jonathan Khaykin	Oceanside High School	<i>Regulation of the Phosphoinositide 3-kinase Pathway Through Inhibition of BET Protein</i>
	Second	Rachel L Mintz	Roslyn High School	<i>A Novel Method to Combat Cisplatin-Mediated Acute Kidney Injury with Alternative Formulations of Magnesium</i>
	Second	Steven Mulackal Thomas	Jericho High School	<i>Integrative Discovery of Novel CpG Methylation Biomarkers for Clinical Utilization in Hepatocellular Carcinoma</i>
	Third	Sydney Taylor Blanche	Manhasset High School	<i>The Effect of Extracellular Magnesium Restriction on the Growth of Cancerous (MCF-7) and Normal (MCF-12A) Breast Epithelial Cell Lines</i>
	Third	Ishan Datt	Syosset High School	<i>A Novel Algorithm to Determine the Functionality of Glioma Associated SNP's</i>
	Third	Robbin Jang	William A. Shine Great Neck South High School	<i>Synthesis and observations of novel Acetyl-CoA Carboxylase inhibitors: precursors to bivlaent compounds</i>
	Third	Katie Tan	William A. Shine Great Neck South High School	<i>Identification of the kinase responsible for the phosphorylation of ERM proteins upon S1P treatment</i>
	Third	Arthur Wang Wang	Syosset High School	<i>Explicating the Effects of Isoflurane and Desflurane on Metastatic Movement</i>
	Third	Derek Xu	Jericho High School	<i>Isorhapontigenin Inhibits Glioblastoma Stem Cell Proliferation by Inhibiting Cyclin D1</i>
	Honorable	Christopher	East Meadow	<i>Off-Clamp Laparoscopic</i>

	M	Babu	High School	<i>Partial Nephrectomy</i>
	Honorable M	E. Madeline Rose Fagen	Paul D Schreiber High School	<i>Comparative analysis of cerebrospinal fluid and peripheral blood in patients with schizophrenia and healthy controls</i>
	Honorable M	Byeongho Jung	Herricks High School	<i>Nitric Oxide with Salicin Inhibits Neuroblastoma Growth and Selectively Inhibits COX-2 In Non-cancerous cells: Implications for the Reduction of Combinatorial Complexity</i>
	Honorable M	Victoria R Koffsky	West Islip High School	<i>Mapping the structure of neuritic Alzheimer's™s plaques using synchrotron infrared microscopy</i>
	Honorable M	Athina Vrosgou	Plainview Old Bethpage JFK High School	<i>A Novel in vivo Investigation of Vein Wall Thickness in the Pathophysiology of Chronic Venous Disease</i>
	Honorable M	Carly Michaela Weber-Levine	Ward Melville High School	<i>A marker of neural progenitor cells can be detected in vivo in enhancing lesions of individuals with multiple sclerosis</i>
	Honorable M	Logan Maxwell Weitz	Long Beach High School	<i>Cancer Prevention: The Extraction and of the p53 Cancer gene from Human Organ Cells</i>
	First	Brian Joseph Righter	Smithtown High School East	<i>Designing a Genetic CRISPR-cas Detection Probe for Adherent-Invasive Escherichia coli Utilizing Comparative Genomics</i>
	Second	Daniel Conor Kelly	West Islip High School	<i>Characterization of the binding of the Staphylococcus epidermidis surface protein SdrS to fibrinogen and vitronectin</i>

Microbiology	Second	Chelsea Ramjeawan	Uniondale High School	<i>Elucidating the Genetic Basis of Eukaryotic Cell Size</i>
	Third	Brianna Delgado	Commack High School	<i>The Effect of Early-Life Antibiotic Treatment on Intestinal Microbial Communities</i>
	Third	Eric Harris	West Islip High School	<i>Examining the Relative Fitness of Escherichia coli K-12 and Antibiotic Resistant Escherichia coli in Response to T4r Infection</i>
	Third	Ryan Michael Moreida	Lynbrook Senior High School	<i>A Molecular Screen to Identify Small Molecules for Treatment of Viral-Associated Lymphomas</i>
	Honorable M	Christine Elena Collins	Sanford H. Calhoun High School	<i>Comparison of Relative Abundances of Bacterial Taxa in Patients with Autism Spectrum Disorder (ASD) and their Unaffected Siblings</i>
	Honorable M	Jake Lippi	Oceanside High School	<i>The Effect of Eaf3/5/7 Deletions on NuA4 Binding at Histone H3</i>
Physics and Astronomy	First	Niyati K Desai	Ward Melville High School	<i>Hybrid Graphene-Ferroelectric Devices Utilizing BaTiO₃ - SrTiO₃ Superlattices</i>
	Second	August Sun Chen	John L. Miller Great Neck North High School	<i>The Mysterious Brightening and Decaying of Jet M87: 14 Years of Knot Variability</i>
	Third	Kyle Anthony Markland	Rocky Point High School/Teacher	<i>The Effect of Shielding on Cosmic Ray Muon Interference</i>
	Third	Christopher Lawrence Wilson	Paul D Schreiber High School	<i>The Fermi Pasta Ulam Problem in a Monatomic Lattice with Periodic Boundary Conditions</i>
	Honorable M	Christine An	William A. Shine Great Neck South	<i>Finding the Critical Point in the Phase Diagram of Nuclear Matter</i>

			High School	
	Honorable M	David Hunter Mark	Bellmore JFK High School	<i>Analysis of the Spitzer IRAC Bands Responsible for the Potential Disequilibrium in the Atmosphere of the Exoplanet GJ 436b</i>
Plant Sciences	First	Meghan Dong Duo Bialt-DeCelie, Benjamin David Golbin, Levy Aaron Sominsky	GW Hewlett High School	<i>Investigating the phytotoxicity of ZnO nanoparticles and the mechanism of transport in the prothallial cells of Ceratopteris richardii</i>
	Second	Samuel Lucas Goldman	Paul D Schreiber High School	<i>A network-based identification of virus resistance genes in plants</i>
	Third	Vincent Pennetti	Commack High School	<i>Traditional and Biotechnological Development of New Clover (Trifolium spp.) Plants</i>
	Third	Sidney Saint Hilaire	Sewanhaka High School	<i>An Observation of Dracaena Braunii in a Biophotovoltaic System</i>
	Honorable M	Christina S Mendoza	W Tresper Clarke High School	<i>Cytoplasmic Expression of β-Carboxysomal Proteins in Nicotiana benthamiana</i>
	Honorable M	Michelle Shen	Syosset High School	<i>Identification of Novel Genes Regulating Plasmodesmata Cell-to-Cell Trafficking</i>