



# LI Science & Engineering Fair, Inc.

Promoting Excellence in Scientific Inquiry and Discovery in LI Schools

## LISEF 2016 Grand Award Winners

	Award	Name	School	Title
Animal Sciences	First	Jared Randolph Bergen	Sayville High School	<i>Geospatial Analysis of Cetacean Distribution and Habitat Utilization Related to Prey Density and Sea-Surface Temperature off the Long Island, New York Coastline</i>
	First	Rachel Lauren Mashal	Bellmore John F. Kennedy High School	<i>Development of a Caffeine Addiction Paradigm to Examine How Dietary Restriction and Level of TOR Signaling Modulate the Effects of Drugs</i>
	Second	Julia Shawn Golsamt	John L. Miller Great Neck North High School	<i>The Pharmacological Examination of D-Cycloserine and Abilify Following Chronic MK801 Administration in Mice</i>
	Second	Matthew Raymond Perkins	George W. Hewlett High School	<i>Alpha and Beta Adrenergic Agonists Increase Hindrance to Diffusion of 3-kDa Dextran in Mouse Visual Cortex Extracellular Space</i>
	Third	Tooba Alwani	William A. Shine Great Neck South High School	<i>The Role of Alkaline Ceramidase 3 Knockout in Inducing Urinary retention</i>
	Third	Gabrielle Jung, Connie J He	Half Hollow Hills High School West	<i>Creation of a Nanoparticle-Infused Cream that Effectively Reduces Aedes aegypti Feeding on a Simulated Bovine Blood Source</i>
			Leah Accardi	

	<b>Third</b>	<b>Shokrian, Savannah Lynne Kile</b>	Long Beach High School	<i>Correlation Among <i>Illyanassa obsoleta</i>'s Shell Size and <i>Pleurogonius malaclemys</i>' Presence.</i>
	<b>Honorable M</b>	<b>Arujan Ilanges</b>	Oceanside High School	<i>Touch Inhibition in <i>C.elegans</i></i>
	<b>Honorable M</b>	<b>Hannah Emily Rosenthal</b>	Smithtown High School West	<i>Using Genetics and Morphology to Understand the Evolution and Function of the Mammalian Vomeronasal Organ</i>
	<b>Honorable M</b>	<b>Steven H Spreizer</b>	Smithtown High School West	<i>Pharmacological Characterization of Nicotinic Cholinergic Receptors in <i>Nematostella vectensis</i></i>
	<b>Honorable M</b>	<b>Caitlin Cristina Unkenholz</b>	Smithtown High School West	<i>The Sea Anemone, <i>Nematostella vectensis</i>: a Unique View in Studying Nicotinic Acetylcholine Receptors</i>

	<b>First</b>	<b>Miriam Shira Eisenberg</b>	North Shore Hebrew Academy High School	<i>Going for The Goal: The Effects of Removing Preparatory Information on The Fast and Unconscious Reading of Action Goals in a Computer-Simulated Competitive Interaction</i>
	<b>First</b>	<b>Jessica Li Huang</b>	Jericho High School	<i>Redefining the Neurological Basis of Fluid Intelligence: Investigating network strength and normalized degree of resting state functional connectivity</i>
	<b>Second</b>	<b>Nicolas Furci</b>	Roslyn High School	<i>The Effect of Framing and Perceived Control on the Optimism Bias, Risk Perceptions, and Attitudes Towards Driving Under the Influence of Marijuana</i>
	<b>Second</b>	<b>Claire Dorothy Kelly</b>	Bellmore John F. Kennedy High School	<i>Impulsivity as a Predictor for Enhanced Attention Towards Novel Drug-paired Stimuli</i>
				Plainview Old

<b>Behavioral and Social Sciences</b>	<b>Second</b>	<b>Jordyn Schor</b>	Bethpage JFK High School	<i>Typography to Increase Cognitive Fluency in Nystagmus Patients</i>
	<b>Third</b>	<b>Olivia Marie Clancy</b>	Plainview Old Bethpage JFK High School	<i>Investigating the Effect of Mindful Attention Technqiues of Emotional Regulation of Adolescents</i>
	<b>Third</b>	<b>Cori Dauman</b>	Plainview Old Bethpage JFK High School	<i>Evaluating the Impact of Informational and Normative Conformity on Decision Making in Online Settings</i>
	<b>Third</b>	<b>Daniel Jordan Hirsch</b>	Syosset High School	<i>Analysis of Background Capital of Founders of Fortune 1000 Companies</i>
	<b>Third</b>	<b>John Patrick Jeffrey</b>	Kings Park High School	<i>The Relationship between Body Mass Index and Depression as Established by Event Related Potentials and Progesterone Levels in Adolescent Females</i>
	<b>Third</b>	<b>Abigail Spilkevitz</b>	Plainview Old Bethpage JFK High School	<i>Eliciting Student-Instructor Connectedness in Online Learning</i>
	<b>Honorable M</b>	<b>Jessica M Conforti</b>	Northport High School	<i>Not So A-MAZE-ing Rats The effect of sex differences and Parkinsonâ€™s disease on the cognitive functions of an animal in accordance to performing a specified task using the Barnes Maze</i>
	<b>Honorable M</b>	<b>Zareen Johnson</b>	Paul D. Schreiber High School	<i>Vaccination Rates in Bangladesh and Accuracy of Caregivers' Recollection</i>
	<b>Honorable M</b>	<b>Rumana Akter Rahman</b>	East Meadow High School	<i>Fact-Checking the Major Controversies of the 2016 Presidential Election; Society's Perceptions vs. Reality</i>
				<i>The Single Stigma: Investigating the</i>

	<b>Honorable M</b>	<b>Nathan Mitchell Yang</b>	Roslyn High School	<i>Perceptions of Single Parents Based on Gender and Way of Becoming Single</i>
<b>Biochemistry</b>	<b>First</b>	<b>Kameron Sedigh</b>	Kings Park High School	<i>Structural and Kinetic Analysis of methicillin-resistant Staphylococcus aureus MenE, an acyl-CoA Synthetase of the Bacterial Menaquinone Biosynthesis Pathway as a Novel Antibacterial Target</i>
	<b>Second</b>	<b>Jason Christopher Fiacco</b>	Manhasset High School	<i>Mss4p activity during nonsister dyad formation is dependent upon Nud1p expression in Saccharomyces cerevisiae</i>
	<b>Second</b>	<b>Louis Lin</b>	Sanford H. Calhoun High School	<i>The Interactions of p53 and Mannose in Congenital Disorders of Glycosylation Using a Zebrafish Model</i>
	<b>Third</b>	<b>Karena Devi Etwaru</b>	Half Hollow Hills High School East	<i>Lidocaine Suppresses TRPM7 Channel Activity: Implications for Anesthetics as Post-Operative Therapeutics</i>
	<b>Third</b>	<b>Lynn Hlaing</b>	William A. Shine Great Neck South High School	<i>Probing LRRK2 Kinase Activity for Potential Parkinson's™ Drug Treatments through Mutagenesis of the COR-48 Fragment</i>
	<b>Honorable M</b>	<b>Philip Joonkyoung Jang</b>	Syosset High School	<i>The Elucidation of Cathepsin Inhibitors through Computational and Experimental Methods</i>
	<b>Honorable M</b>	<b>Aaron Henry Wang</b>	Jericho High School	<i>Enzymatic Activity of the K173Q Polymorphism of NPP1: Kinetic Analysis for Assessing Implications in Disease</i>
	<b>First</b>	<b>Mohamed Ehab El-Abtah</b>	Syosset High School	<i>Organotypic ex vivo culture of liver tissue for assessment of HCC</i>

<b>Biomedical and Health Sciences</b>				<i>chemoprevention drug</i>
	<b>First</b>	<b>E. Madeline Rose Fagen</b>	Paul D. Schreiber High School	<i>Proinflammatory cytokines and miRNA: Identifying novel biomarkers of immune dysfunction in schizophrenia</i>
	<b>Second</b>	<b>Sandra Li</b>	Jericho High School	<i>Elucidating cancer racial health disparities: The differential effect of Î´-Tocopherol in colon cancer between African and Caucasian Americans</i>
	<b>Second</b>	<b>Brian R Zhao, Brandon J Gong</b>	Herricks High School	<i>Inhibition of the AMP-Activated Protein Kinase Pathway Regulates Metabolic Homeostasis in Drosophila melanogaster: Novel Implications for Treatment of Obesity and Diabetes</i>
	<b>Third</b>	<b>Joy Bestourous</b>	The Wheatley School	<i>Grape Seed Extract Decreases Tumor Susceptibility and Expression of Cep-1 by Increasing XPA Expression in Caenorhabditis elegans</i>
	<b>Third</b>	<b>Yianni Flouskakos</b>	Garden City High School	<i>High Fructose Corn Syrup 42 (HFCS 42) Stimulates the Morphine-Signaling Pathway in Neuroblastoma Cells</i>
	<b>Third</b>	<b>Michael W. Lai</b>	Jericho High School	<i>Opportunity for Pharmaceutical Intervention in Lung Cancer: Selective Inhibition of JAK1/2 to Eliminate EMT-Derived Mesenchymal Cells</i>
	<b>Honorable M</b>	<b>Anjali Balamurugan</b>	Smithtown High School East	<i>Blood Mercury Levels and Autoimmune Biomarkers in Adults</i>
	<b>Honorable M</b>	<b>Benjamin Lee Honigsfeld</b>	W. C. Mepham High School	<i>The Downregulation of GSK3-B by Lithium Chloride Leads to an Increase in Chemoresistance</i>
				<i>Bringing Bacteria Back to</i>

	<b>Honorable M</b>	<b>Anna Kuznetsova</b>	Bellmore John F. Kennedy High School	<i>Life: Are Probiotic Bacteria in Human Milk Dormant or Dead After Freezer Storage?</i>
	<b>Honorable M</b>	<b>Dylan Lee</b>	Paul D. Schreiber High School	<i>Emetine Attenuates TNF Release from Human Macrophages</i>
	<b>Honorable M</b>	<b>Sarah Marie Romanelli</b>	Oceanside High School	<i>The role of NT5C2 in drug resistance and relapse of T-ALL</i>

<b>Cellular &amp; Molecular Biology</b>	<b>First</b>	<b>Mahip Grewal</b>	Roslyn High School	<i>Investigation of HCC Development Following Senescence in UHRF1 Overexpressing Zebrafish Livers</i>
	<b>Second</b>	<b>Joshua Benjamin Katz</b>	Syosset High School	<i>A novel association between thrombospondin-2 and lysyl oxidase</i>
	<b>Second</b>	<b>Elizabeth Varghese</b>	Plainview Old Bethpage JFK High School	<i>A Novel Investigation into the Functional Importance of a Positively-Charged Domain of Rec8 that Promotes Interaction with Zip1 in vivo</i>
	<b>Third</b>	<b>Edward Li</b>	Half Hollow Hills High School East	<i>The Discovery of Neuronal Wiskott Aldrich Syndrome Protein Inhibitor, Wiskostatin, as a Novel Autophagy Inducer in Macrophages</i>
	<b>Third</b>	<b>Emma G McLaughlin</b>	Oceanside High School	<i>Verification of Genetic Modifiers of the 22q11.2 Deletion Syndrome</i>
	<b>Third</b>	<b>Emily Ann Peterson</b>	Smithtown High School East	<i>The Role of Lecithin:Retinol Acyl Transferase in Keratinocyte Mechanics</i>
	<b>Honorable M</b>	<b>Mackenzie Belle Kreit</b>	Lynbrook High School	<i>A Comparative Study of the Epigenetic Profiles of Resistant and Responsive Melanoma</i>
	<b>Honorable M</b>	<b>Jacob Benjamin Miller</b>	Sanford H. Calhoun High School	<i>SNP of DPP4 as Probable Cause of BCM7 Intolerance in Children with</i>

				ASDs
	<b>Honorable M</b>	<b>Matthew Caleb Wang</b>	Valley Stream North High School	<i>The Effect of the BLVRB and BLVRBS111L Enzymes on FMN Reduction</i>
<b>Chemistry</b>	<b>First</b>	<b>Archana Verma</b>	Jericho High School	<i>Effect of Jahn-Teller Distortions on Relaxation Dynamics</i>
	<b>Second</b>	<b>Sarah Lee</b>	Syosset High School	<i>Next Generation Fatty Acid Binding Protein Inhibitors: Computer-Aided Drug Design and Synthesis of Novel Truxillic Acid Diesters for Chronic Pain Inhibition</i>
	<b>Third</b>	<b>Shani Kahan</b>	North Shore Hebrew Academy High School	<i>A Novel Bioorthogonal Trans-synaptic Tracer of Neural Circuitry</i>
	<b>Third</b>	<b>Tal Moriah</b>	Plainview Old Bethpage JFK High School	<i>Study of the Thermodynamics of Calcium and Magnesium Binding to Aminophenol Triacetic Acid (APTRA) Chelator: Toward the Design of Better Metal Indicators for Cellular Imaging</i>
	<b>Honorable M</b>	<b>Hunter Cohen</b>	Cold Spring Harbor High School	<i>Cyprid Settlement Inhibition Using Anticoagulants</i>
<b>Computational Biology and Bioinformatics</b>	<b>First</b>	<b>Raymond Minor Huffman, Michael Yumin Lee</b>	Manhasset High School	<i>Deep Learning: Structural and Characteristic Classification of nsSNP Deleterity</i>
	<b>Second</b>	<b>Niranjan Senthilkumar</b>	Manhasset High School	<i>AFBIR: Developing a Novel Automated Model of Feature-Based Methods as a Cost-Effective Tool for Biomedical Analysis</i>
	<b>Third</b>	<b>Matthew Sacks DiStefano</b>	Oceanside High School	<i>Pharmacological Tailoring and Validation for Glioblastoma Multiforme Model</i>
				<i>Systematic Discovery of</i>

	<b>Third</b>	<b>Ariel Kelly Leong</b>	Ward Melville High School	<i>Genes and Networks in Colon Cancer Stem Cells Implicated in Chemoresistance</i>
	<b>Honorable M</b>	<b>Samantha Victoria D'Alonzo</b>	Paul D. Schreiber High School	<i>Testing the Effectiveness of the Friendship Paradox for Tracking Epidemics</i>
<b>Computer and Mechanic Sciences</b>				
<b>Computer and Mechanic Sciences</b>	<b>First</b>	<b>Andrew J Meersand</b>	Lynbrook High School	<i>A Novel Soft Robotic Grasper Using Pneumatic Network Bending Actuators</i>
	<b>Second</b>	<b>Nathaniel Paul Lee</b>	Jericho High School	<i>Broadband Mid-IR frequency comb generation via OP-GaAs based optical parametric oscillators from 2.5-6.5 <math>\mu\text{m}</math></i>
	<b>Third</b>	<b>David Li</b>	Commack High School	<i>A Multi-Dimensional Implementation of the Named Data Networking Paradigm for Embedded Systems</i>
	<b>Third</b>	<b>Wu Linxin</b>	Sayville High School	<i>Laser Universal Serial Bus (LUSB)</i>
	<b>Honorable M</b>	<b>Augusta C. Uwamanzu-Nna</b>	Elmont Memorial High School	<i>Rheological characterization of attapulgite nanoclay modified cement slurries for oil well cementing applications</i>
<b>Energy</b>				
<b>Energy</b>	<b>First</b>	<b>Lee Jared Blackburn</b>	Lawrence High School	<i>Incorporation of Platinum and Gold Partially Reduced Graphene Oxide into Polymer Electrolyte Membrane Fuel Cells for Increased Output Power and Carbon Monoxide Tolerance</i>
	<b>Second</b>	<b>Kunal Shah, Brian Rhee, Roshan Patel</b>	Syosset High School	<i>Enhanced Power Output and Tolerance to Fuel Impurities Demonstrated in a Polymer Electrolyte Membrane Fuel Cell Utilizing a Graphene Oxide Nanoparticle Coated Nafion® Membrane</i>



	<b>Third</b>	<b>Soram Kim</b>	Half Hollow Hills High School West	<i>Engineering an Energy Efficient Air Dehumidification System Utilizing a Novel Liquid Desiccant Membrane Interface</i>
	<b>Honorable M</b>	<b>Bryant Liu</b>	Rocky Point High School	<i>Cost-competitive renewable energy: Optimizing conditions to efficiently convert fallen tree leaves to liquid biofuels</i>

	<b>First</b>	<b>Alexis M D'Alessandro</b>	Half Hollow Hills High School West	<i>Optimization of Membrane Distillation Technology for Water Purification</i>
	<b>First</b>	<b>Kimberly Alexis Te</b>	Manhasset High School	<i>Optimizing Microbial Fuel Cell Electrical Performance through a Single-Chamber Design and Novel, Natural, Cost-Effective Anodes</i>
	<b>Second</b>	<b>Summar Khan, Bartolomeo Voto, Richard Lee</b>	Manhasset High School	<i>Developing a Data Acquisition and Analysis System for Solar Flares and Earthquakes through Shifts in Very Low Frequency Wave Propagation</i>
	<b>Second</b>	<b>Evan Lander</b>	Plainview Old Bethpage JFK High School	<i>Optimizing an Immiscible Bulk Polymer Blend Via Graphene Compatibilization for Geomembrane, Recycling and Cable Applications</i>
	<b>Second</b>	<b>Elizabeth Rieger</b>	Garden City High School	<i>A Plant Based Method to Decrease Pro-inflammatory Cytokine Production in Response to Cytotoxic Volatile Organic Compounds: Implications for Asthma and Respiratory Diseases.</i>
	<b>Third</b>	<b>Abbigayle Emily Cuomo, Elizabeth Marie Van Loon</b>	Commack High School	<i>A Modified Forest Fire Index for the Northeast United States</i>
			<b>Chelsea Alexaray D'Agrella,</b>	

Environmental and Earth Sciences	Third	Jessica Esmeralda Guerrero, Lilia Zetrene	Brentwood High School	<i>on the Formation and Sedimentation of Marine Snow.</i>
	Third	Hannah Kim	West Islip High School	<i>Annihilating a Fusarium Blight with Amphotericin B as an Alternative to "Slash and Burn"</i>
	Third	Benjamin Drew Senzer	Syosset High School	<i>A Novel Method of SEM-EDS Analysis to Determine Geochemical Pollutant Selectivity in Marsh Foraminifera</i>
	Third	Sung Won Seo, Emma Fleishman, Ashley Kim	Manhasset High School	<i>Utilizing Wastewater as a Nutrient Source for Chlorella vulgaris: Removing Nitrate and Phosphate Ions from Wastewater and Producing Biodiesel with Excess Chlorella vulgaris</i>
	Honorable M	Jonathan Parker Kapilian, Alexandra Shana Kapilian	Long Beach High School	<i>Building Sustainable Communities: Determining the Ideal Population Density to Minimize Carbon Dioxide, Nitrogen Oxide, and Sulphur Oxide Pollution</i>
	Honorable M	John Rhim	Mineola High School	<i>The Effect of DEET on the Germination of Pisum sativum?</i>
	Honorable M	Sidney Augustine Saint-Hilaire, Shaheer Ahmad Khan	Sewanhaka High School	<i>The Use of Sophorolipids in Remediation of Prudhoe Bay Crude Oil from Contaminated Soil and Sand</i>
	Honorable M	Rubin Asher Smith	William A. Shine Great Neck South High School	<i>Analyzing Thermoelastic Effects as contributors to the 2014 South Napa 6.0M Earthquake.</i>
	Honorable M	Jasmine Nicole Wong	John L. Miller Great Neck North High School	<i>Coagulation-Flocculation Wastewater Treatments Using Bio-surfactants: Natural and Modified Sophorolipids</i>
				<i>Advanced Au-SPIONs:</i>

<b>Materials Science and Biomedical Engineering</b>	<b>First</b>	<b>Grace Hu, Grace Hu</b>	Jericho High School	<i>Synthesis and characterization of multifunctional nanoparticles for cancer theranostic applications</i>
	<b>Second</b>	<b>Rishi N Shah</b>	Jericho High School	<i>Collagen Microfiber Scaffolding for Nerve Repair Applications</i>
	<b>Second</b>	<b>Abigail Rose Wax</b>	Harborfields High School	<i>Artificial Angiogenesis of Human Umbilical Vein Endothelial Cells Through Exposure to Graphene on Various Polymer Surfaces Coated with Fibrinogen and Whole Plasma</i>
	<b>Third</b>	<b>Dessie Ann DiMino</b>	Garden City High School	<i>Development of a 3D Printed Hydrogel Scaffolds through Optimization of Molecular Weight, Functional Domains, and Viscoelastic Properties of Hyaluronic Acid Bioink</i>
	<b>Third</b>	<b>Ethan Hunter Udel</b>	Half Hollow Hills High School East	<i>Development of a Lactate Biosensor Using Nanopatterned Bulk Metallic Glass</i>
	<b>Third</b>	<b>Elaina Zodiatis</b>	Smithtown High School East	<i>Improving Flame Retardancy and Mechanics of Biodegradable Nanocomposites</i>
	<b>Honorable M</b>	<b>Smiti Ketan Shah</b>	Bethpage High School	<i>The Effect of ZnO Nanoparticles on Raphanus sativus</i>
	<b>Honorable M</b>	<b>Michael Shen, Sunny Shi</b>	William A. Shine Great Neck South High School	<i>Creating an Antimicrobial Hydrogel with Inexpensive and Biocompatible Materials for Effective Burn and Wound Healing</i>
	<b>Honorable M</b>	<b>Fangrui Tong</b>	Ward Melville High School	<i>A new approach to chemical sensing using tunable optical properties of unique nanostructures of TiO<sub>2</sub> coated Morpho peleides butterfly scales</i>
	<b>First</b>	<b>Mehtaab Singh</b>	Commack	<i>A Study of Bar and Arc</i>

<b>Mathematics</b>		<b>Sawhney</b>	High School	<i>k-Visibility Graphs</i>
	<b>Second</b>	<b>Xiaocheng Yang</b>	St. Anthony's High School	<i>Determination of The Total Volume of Material Used to Manufacture A Semi-ellipsoidal Container of Uniform Thickness</i>
	<b>Third</b>	<b>Brian Aaron Kishinevsky</b>	Sanford H. Calhoun High School	<i>Orbits of curves on a 4 holed sphere</i>
	<b>Third</b>	<b>Allegra Caitlin Noto</b>	Paul D. Schreiber High School	<i>A Mathematical Model of the Transmission of the Ebolavirus in Guinea</i>
	<b>Honorable M</b>	<b>Sophia Chen</b>	Ward Melville High School	<i>On Steady Super-Kähler Ricci Solitons</i>
<b>Microbiology</b>	<b>First</b>	<b>Justin Kim</b>	Jericho High School	<i>Enhancement of <math>\hat{I}^2</math>-lactam antibiotic susceptibility by tannic acid through <math>\hat{I}^2</math>-lactamase inhibition</i>
	<b>Second</b>	<b>Ariel Slepyan</b>	George W. Hewlett High School	<i>Microfluidic Analysis of E. coli Thermotaxis</i>
	<b>Third</b>	<b>Jordan Rose Messineo</b>	Sachem High School East	<i>The Use of Plant Essential Oils to Prevent Peridontal Disease</i>
	<b>Third</b>	<b>Kaitlyn Rose Sparacio</b>	North Babylon High School	<i>The Pharmacological Inhibition of Quorum Sensing by Cinnamaldehyde on Escherichia coli K12</i>
	<b>Honorable M</b>	<b>Emily K Shutman, Prajanan Senthilkumar</b>	Huntington High School	<i>Multilevel Analysis of the Exposure of Various Metal Ions on ROS generation in T. pseudonana</i>
<b>Physics and Astronomy</b>	<b>First</b>	<b>August Sun Chen</b>	John L. Miller Great Neck North High School	<i>The Production of Ultra High Energy Cosmic Rays via Fermi Acceleration in Relativistic Jets</i>
	<b>Second</b>	<b>Adam Pahlavan</b>	Jericho High School	<i>A Novel Method for Modeling Virtual Electrodes in Cardiac Electrophysiology</i>

	<b>Third</b>	<b>Tawny Sit</b>	Roslyn High School	<i>Radial Profiles of Galaxies and Simulated Star Clusters</i>
	<b>Honorable M</b>	<b>Kelvin Ma</b>	Shoreham Wading River High School	<i>Collimator design to reduce systematic effects in the muon g â² experiment</i>
<b>Plant Sciences</b>	<b>First</b>	<b>Dara Elizabeth Gleeson</b>	Plainview Old Bethpage JFK High School	<i>Isolation and Screening of Beneficial Microbes Associated with the Grapevine, Vitis vinifera</i>
	<b>Second</b>	<b>Mackenzie Shea Kagan</b>	Half Hollow Hills High School East	<i>Identification of Putative Flavonoids Implicated in Age-Related Resistance Observed in Cucumis Sativus L.</i>
	<b>Third</b>	<b>Steven D Obadiah</b>	Bellmore John F. Kennedy High School	<i>The Manipulation of Microfilaments and Microtubules during Cotton Fiber Initiation</i>
	<b>Third</b>	<b>Vincent J Pennetti</b>	Commack High School	<i>Dedifferentiation of Clover (Trifolium repens) Plants</i>
	<b>Honorable M</b>	<b>Carmine D'Auria-Gupta, Franceso D'Auria-Gupta, Marconi D'Auria-Gupta</b>	Locust Valley High School	<i>Artificial Holdfast: Will using rocks as anchor points for kelp cuttings improve the growth rate of Gracilaria tikvahiae</i>
	<b>First</b>	<b>Julian Ubriaco</b>	Kings Park High School	<i>Identification and Characterization of Novel Diagnostic and Therapeutic Targets in Pancreatic Ductal Adenocarcinoma Using an Antibody-based Approach</i>
	<b>Second</b>	<b>Anna Vaynrub</b>	Plainview Old Bethpage JFK High School	<i>Novel Strategy for Tumor-Targeting Chemotherapy with a Hyaluronic Acid â€ Taxoid Conjugate: Determining Three-Dimensional HALT Structure and Expression of CD44 and CD166 in Cancer Cells</i>
				<i>A Novel Algorithm to</i>

<b>Translational Medical Science</b>	<b>Third</b>	<b>Rahul Chaudhry, Sahil Chaudhry</b>	Syosset High School	<i>Efficiently Model Platelet Morphology to Predict the Risk of Thrombus Formation</i>
	<b>Honorable M</b>	<b>Krista Chen</b>	The Wheatley School	<i>Novel Combination Chemotherapy Targeting Cancer Stem Cells with a Tumor Targeted Drug Delivery System Potentiated by Natural Remedies, EGCG and/or Curcumin</i>
	<b>Honorable M</b>	<b>Steven Picillo</b>	Oceanside High School	<i>Investigation of the Inhibitory Effect of Small Molecules on PLK1 Function</i>
	<b>Honorable M</b>	<b>Carolyn Wilson</b>	New Hyde Park Memorial HS	<i>The Effect of Immunomodulatory Drugs on the Pharmacological Induction of Fetal Hemoglobin In Vitro</i>