



# LI Science & Engineering Fair, Inc.

Promoting Excellence in Scientific Inquiry and Discovery in LI Schools

## Junior Varsity 2017 Award Winners

	Award	Name	School	Title
	First	Tiffany Chen, Susan Wu	Manhasset High School	<i>Optimizing the Sustainability of Microbial Desalination Cells Through the Integration of a Biocathode and an Investigation of Various Designs</i>
	First	Emily Alexandra Cruz, Griffen McGrath Catallo, Derek Donoto Mulholland	Manhasset High School	<i>The Effect of a Modified Titanium Dioxide Semiconductor and Natural Dyes from Chlorella Vulgaris and Carotenoids on the Efficiency of a Dye Sensitized Solar Cell with the integration of TENG Cells and TEM cells</i>
	First	Alexandra Taylor Fryman	Plainview Old Bethpage JFK High School	<i>Utilizing CRISPR to Study Nitrogen Fixing Symbiosis in Medicago truncatula</i>
	First	Joanna Rose George	Oceanside High School	<i>Evaluating the Correlation Between Breast Cancer Family History and Folate and Vitamin D Intake</i>
	First	Shermeen Khan	East Meadow High School	<i>The Nano-Donut: Nanoparticles in Food Products</i>
	First	Ashley Kim, Zachary Leng, Aden Horowitz	Manhasset High School	<i>Analyzing the Decolorization of Indigo Carmine Dye using Chlorella vulgaris, Moringa oleifera and Natural Fibers in Simulated Textile Wastewater</i>
	First	Siddharth Devan Menon	Syosset High School	<i>Correcting for Geometric Distortion in Diffusion MR Images of the Prostate</i>

	<b>First</b>	<b>Alexander Mertz</b>	Lynbrook High School	<i>A Modeling Approach to Understanding the Effects of Stochastic Gene Expression on Cell Fate Predictors in MCF10A Cells</i>
	<b>First</b>	<b>Abishek T Ravindran, Ankit G Sayed</b>	W. Tresper Clarke High School	<i>The Effect of Different Resistance Wires on the Voltage of a Lithium-ion Battery</i>
	<b>Second</b>	<b>Alec Matthew Ash</b>	Plainview Old Bethpage JFK High School	<i>The Role of Phosphorylation of alpha-Tubulin on Breast Cell Motility</i>
	<b>Second</b>	<b>Benjamin Basaleli</b>	North Shore Hebrew Academy High School	<i>Emergency Boat Recovery System</i>
	<b>Second</b>	<b>Nicole Julia Calamari</b>	Paul D. Schreiber High School	<i>Using Enzyme Kinetics to Analyze the Efficiency of the K197E and C215S Mutations of PTP1B</i>
	<b>Second</b>	<b>Caroline Chen</b>	Jericho High School	<i>Effects of redox homeostasis restoration with Lactobacillus brevis NADH oxidase on Keap1 mutant lung cancer</i>
	<b>Second</b>	<b>Candace Renee Haney</b>	Bethpage High School	<i>The Effect of Climatic Temperature Change on the Migration Patterns of the White Stork (C. ciconia)</i>
	<b>Second</b>	<b>Samantha Kristine Jenks</b>	West Islip High School	<i>Investigating the Effects of Leptin on Anxiety in Sea Slugs as a Model Organism</i>
	<b>Second</b>	<b>Caroline Alexa Katz, Sarah Pearl Gottesman, Rebecca Mary Muratore</b>	Paul D. Schreiber High School	<i>The Effects of Dopamine-sensitive Sodium Withdrawal on the Planarian Model</i>
	<b>Second</b>	<b>Christa S Mathew</b>	East Meadow High School	<i>Following the Opiate Trail</i>
	<b>Second</b>	<b>Frederick William Nocella, Paige Morgan Bzdyk, Sophia Marie Sherman</b>	Babylon Jr-Sr High School	<i>Tolerance of Mentha piperita and Ocimum basilicum to a high salinity environment in a hydroponic system with the addition of halotolerant Kocuria rhizophila bacteria</i>

<b>Categories</b>	<b>Second</b>	<b>Amber Morganne Tricia Patrick</b>	Jericho High School	<i>Alloimmunization: Identification of biomarkers in sickle cell disease</i>
	<b>Second</b>	<b>Brandon Tian Xie, Rohan Varma Basavaraju</b>	Jericho High School	<i>Adsorption ability of casein nanoparticles for heavy metal removal</i>
	<b>Third</b>	<b>Anna L Browne</b>	Wantagh High School	<i>The Effect of Potassium Nitrate on the Population of Eisenia fetida</i>
	<b>Third</b>	<b>Sean Patrick Cafferty</b>	West Islip High School	<i>A Study of the Factors that Aid and Hinder Sleep in Adolescents</i>
	<b>Third</b>	<b>Aria Eghbali, Yeil Kim</b>	Commack High School	<i>An RF Radiation Sensor that is Capable of Detecting RF Emitters at Varying Frequencies</i>
	<b>Third</b>	<b>Josena Joseph</b>	Oceanside High School	<i>Control of PD-L1 Expression through Treatment with ON-01910 in Non Small Cell Lung Cancer Cell Lines</i>
	<b>Third</b>	<b>Soo Bynn Lee, Matthew John Palmadessa</b>	Manhasset High School	<i>The Role of Thick Terminal Branch Proliferation Induced by Hypoxic Stress on the Facilitation of Tumor Metastasis in Drosophila melanogaster</i>
	<b>Third</b>	<b>Swati Swati Madankumar</b>	Jericho High School	<i>The Role of Magnesium in Cisplatin-Mediated Kidney Injury and Repair</i>
	<b>Third</b>	<b>Devin J Miller</b>	West Islip High School	<i>An Evaluation of the Potential Medicinal Values of the Glucosides Derived from Podophyllum peltatum</i>
	<b>Third</b>	<b>Ali Fallon Morrissey, Molly Ann McLoughlin, Saige Amanda Gitlin</b>	Paul D. Schreiber High School	<i>The Effects of Perfluorooctanoic acid and Butylated Hydroxytoluene on the behavioral and burrowing mechanisms of Lumbricus terrestris</i>
	<b>Third</b>	<b>Rachel Ellen Roday, Kolby Ellsworth Rappel, Nathan Joseph Gamboa</b>	Huntington High School	<i>The Effect of Visual Cues on the Spectral Discrimination and Camouflaging Abilities on S. officinalis</i>

	<b>Third</b>	<b>Shruthi Shekar</b>	Jericho High School	<i>Reduction of breast cancer metastasis &amp; epithelial to mesenchymal transition (EMT) of breast cancer stem cells (BCSCs) through antisense knockdown of SOX5</i>
	<b>Honorable Mention</b>	<b>Alyssa Brianna D'Arrigo</b>	Bethpage High School	<i>The Effect of Ocean Acidification on Marine Life Shell Dissolution</i>
	<b>Honorable Mention</b>	<b>Lauren Emily Getzler</b>	Plainview Old Bethpage JFK High School	<i>The Effects of Taraxacum officinale on Digestion in Saccharomyces cerevisiae</i>
	<b>Honorable Mention</b>	<b>Gabriel Antonio Grullon, William Chen</b>	Manhasset High School	<i>The Effects of the Symbiotic Relationship between Arbuscular Mycorrhizal Fungi and Plants on the Germination Levels of Brassica rapa in Lead Contaminated Soil</i>
	<b>Honorable Mention</b>	<b>Rahul Parthasarathy</b>	Syosset High School	<i>Pro-inflammatory cytokines TNF and IL1b activate sensory neurons in a receptor-dependent manner</i>
	<b>Honorable Mention</b>	<b>Jui Patel</b>	Oceanside High School	<i>Quantifying Microplastics at Plumb Beach and Fort Tilden Quantifying Microplastics at Plumb Beach and Fort Tilden Quantifying Microplastics at Plumb Beach and Fort Tilden Quantifying Microplastics at Plumb Beach and Fort Tilden</i>
	<b>Honorable Mention</b>	<b>Joshiah Reji Phillips</b>	W. Tresper Clarke High School	<i>How do people of different age groups perceive the passage of time?</i>
	<b>Honorable Mention</b>	<b>Danielle Ryba</b>	North Shore Hebrew Academy High School	<i>Biometric Attendance System</i>
	<b>Honorable Mention</b>	<b>Yasemin Ipek Sahin, Kathy Cao, Maheen Khan</b>	Commack High School	<i>The Effects of Water Exposed to Artificial Turt on California Blackworms (Lumbriculus variegatus)</i>
	<b>Honorable</b>	<b>Mili Nimesh</b>	Plainview Old	<i>The Comparative Study of Lumbar Vertebrae in</i>

	<b>Mention</b>	<b>Shah</b>	Bethpage JFK High School	<i>Present-Day and Subfossil Strepsirrhine Primates</i>
	<b>Honorable Mention</b>	<b>Jeremy Wang</b>	Syosset High School	<i>Enhancing Production of Lactate through Delta-Integration and Characterization of PDC Gene Knockout</i>
	<b>Honorable Mention</b>	<b>Anne Yan</b>	The Wheatley School	<i>The Effect of Nitrulline on the Expression of Dys-1 and Dye-1 Genes in C. Elegans</i>