



# LI Science & Engineering Fair, Inc.

Promoting Excellence in Scientific Inquiry and Discovery in LI Schools

## Junior Varsity 2019 Award Winners

	Award	Name	Category	Title
Carle Place High School	Honorable Mention	Lyra Yuqin Lu	Categories	<i>Berberine's Effect on Abeta</i>
Commack High School	Third	Gavin James Cressy, Amy Liu	Categories	<i>The Effect of Sugars on Ampicillin Resistance in Escherichia coli</i>
	Third	Rohan Surana, Kevin Chen	Categories	<i>An Analysis of the Relationship between Shifts in Cyclone Weather and Variable Temperature Gradients</i>
East Hampton High School	Third	Kendall Grace Stedman	Categories	<i>Enhancing the Tolerance of Phaseolus vulgaris (Navy Beans) to Acid Rain by Exogenous and Endogenous Abscisic Acid (ABA)</i>
East Meadow High School	First	Abigail Akselrod, Ikshu Pandey	Categories	<i>The Effect of Electromagnetic Radiation on the Tunneling Behaviors of Ants</i>
Great Neck South High School	First	Jaekeun Sung	Categories	<i>Pneumatic Actuator Operated by Electrolysis of Water and Fuel-Cell Inspired Water Generator: Artificial Muscle Module</i>
Hicksville Senior High School	Second	Sejal Gupta	Categories	<i>Creation of a Cost Effective Prototype for Joint Rehabilitation with the Implementation of a New Algorithm to Trace the Path of Joints</i>
Huntington High School	Third	Ava Lavinia Waxenberg, Peyton Kalb, Zubair Ali	Categories	<i>The Effect of Mytilus edulis on the Detoxification of Potassium Nitrate in Long Island Sound Water</i>

Jericho High School	First	Emily Gan	Categories	<i>Optimization of Year-Round Outdoor Algal Cultivation: Fluorophore-Enhanced Photof Density of Photosynthetically Active Radia</i>
	Second	Marguerite Li	Categories	<i>Pesticides Associated with Alzheimer's Disease Prevalence: Dysfunctions in Neurological Hallmarks with Pyrethroids a Piperonyl Butoxide</i>
	Second	Rishika Nahata	Categories	<i>Oxaliplatin Resistance Induced by ERCC1 Metastatic Colorectal Cancer Patients</i>
	Second	Riya Harshit Patel	Categories	<i>Fluorescence Quenching by 4-(2-hydroxyethyl)-1-piperazineethanesulf acid (HEPES) Buffer</i>
	Honorable Mention	Kartik Subramanian	Categories	<i>Ephemeral Exit Bridges for Tor</i>
Locust Valley High School	Honorable Mention	Nils Robert Coffey	Categories	<i>The Use of Cryptochrome-4 in Magnetoreception in a Varsity of Species</i>
Lynbrook High School	Third	Arpie Bakhshian	Categories	<i>Development of CRISPR/Cas9 Knockout Selected Inflammatory Bowel Disease-Related genes in an In Vitro Mode Using Caco2 Cells</i>
	Third	Julie Sara Lampert	Categories	<i>Surfactant-Mediated Liquid Crystalline Self-Assembly of Charged Nanocellulose i Organic Solvents</i>
Manhasset High School	First	Sarah Bella Shao, Kaitlyn Joann Clarke	Categories	<i>The Efficiency of Aluminum Oxide, Sodium Alginate, and Activated Charcoal as Hybrid Materials in the Adsorption of Methylene B</i>
	Second	Mir Zayid Alam, Taylor Fox	Categories	<i>Blue-Light Induced Sleep-Deprivation Affe Behaviors of Drosophila melanogaster</i>
	Second	Joshua Max De Leeuw, Benjamin Glauner	Categories	<i>The Use of Calcium Carbonate to Remediate the Effects of Acid Rain on Root Growth, Germination, Chlorophyll Content, and Photosynthesis in a Glycine max Model</i>
	Second	Kayla Hsu, Mary Elizabeth Nickita	Categories	<i>The Effectiveness of Pretreatment of Rhizobium leguminosarum and Ascorbic A on Preventing Osmotic and Oxidative Stre. Caused by High Salinity in Soil</i>
		Kevin Ryan Carratu,		<i>The Effect of Curcumin on Caenorhabditis</i>

	Third	Spyrithoula Zoe Xenophontos	Categories	<i>elegans dys-1 Locomotory Response, Lifespan, and Preference</i>
	Honorable Mention	Ava J Balacek, Emily K Ma	Categories	<i>Remediation of Copper Sulfate Utilizing Lemna minor, Salvinia minima, and Lumbriculus variegatus</i>
Oceanside High School	Second	Elana R Pocress	Categories	<i>Intracellular Sterol Transport using Saccharomyces as a Model</i>
	Honorable Mention	Ethan James Chetkof	Categories	<i>The Impact of IFN-gamma on Non-opsonz Phagocytosis</i>
Paul D. Schreiber High School	First	Jeannie Ren	Categories	<i>Inside the Black Box: Topological Memorization and Generalization of Convolutional Neural Networks</i>
	Second	Jaime Lara Levin	Categories	<i>The Relationship Between Race and Maternal Age and Offspring Psychiatric Outcomes of Bipolar and Schizophrenia Illness: A Case-Control Analysis in Urban Populations of African American and Caucasian Descent</i>
	Third	Dylan Ira Lyman	Categories	<i>Ambiguity in Pronouns: An Analysis of the Effect of Age and Gender on Third Person Pronoun Choice</i>
	Honorable Mention	Eric Martin Epstein	Categories	<i>The Effect of in utero Exposure to Materna anti-Caspr2 Antibodies on Cortical Development</i>
	Honorable Mention	Lindsey Hope Feinstein, Madeline Grace Competello	Categories	<i>The Effects of Taurine and Organic Growthl on Obesity in Lumbricus terrestris</i>
Plainview Old Bethpage JFK High School	Honorable Mention	Ross Scot Bernstein	Categories	<i>Catecholamine Inhibition of IL-4 Induced B-Cell Activation and Differentiation</i>
	Honorable Mention	Saurav Bhasin	Categories	<i>Using Perfusion Analysis to Evaluate the Connection of Higher Cerebral Blood Volumes with an Endothelial Growth Factor Mutation in Glioblastoma Multiforme</i>
	First	Nicole Julia Blattman	Categories	<i>Small Proteins, Large Roles: Resolving the Structure of Small Vasohibin-Binding Prote Using E. coli Heterologous Expression and Nuclear Magnetic Resonance Spectroscopy</i>
	Second	Joshua Alan Flashner	Categories	<i>Shining a Light on the Black Box of Neural Networks</i>

<b>Roslyn High School</b>	<b>Third</b>	<b>Daleep Singh Grewal</b>	Categories	<i>The Role of FYN Inhibition and Knockdown Determining Podocyte Cell Size and Actin Cytoskeleton</i>
	<b>Honorable Mention</b>	<b>Sophie Arin Fries</b>	Categories	<i>The Effect of Gender of Initiator and Gender of Payer on a Date on Perceived Attractiveness and Compatibility</i>
	<b>Honorable Mention</b>	<b>Maddie Rubin</b>	Categories	<i>The Synthesis and Purification of Pam3CS Spacer-Tag Variants</i>
	<b>Honorable Mention</b>	<b>Feyi Rufai</b>	Categories	<i>Does That Make Me Crazy? The Effects of Treatment Type and Effectiveness on Personal Perception</i>
<b>Sanford H. Calhoun High School</b>	<b>Third</b>	<b>Valeria Ventura Subirachs</b>	Categories	<i>Estimating the Age and Magnetic Field Strength of Pulsar and Pulsar Candidates</i>
	<b>Honorable Mention</b>	<b>Sonia Sarju</b>	Categories	<i>Effects of Hypoxic Conditions on the Phototoxicity of Bugula stolonifera and Bugula neritina</i>
<b>Seaford Senior High School</b>	<b>Third</b>	<b>Kaylee Sanderson, Kathleen Tuohy, Julia Gambino</b>	Categories	<i>Antibacterial Abilities of Seaweed Originated from the South Shore of Long Island, NY</i>
<b>Syosset High School</b>	<b>First</b>	<b>Sabrina Nicole Eager</b>	Categories	<i>Comparing Actual and Perceived Creativity Differences Among Students Across Academic Disciplines</i>
	<b>First</b>	<b>Giselle Leah Rasquinha</b>	Categories	<i>The Enhancement of HIV-1 Fusion Inhibitor Potency by Key Residue Mutagenesis and C-terminal Anchor Addition</i>
	<b>First</b>	<b>Sona Santy</b>	Categories	<i>Coordinated Evolutionary Growth in the Cerebellum and Cerebrum</i>
<b>The Wheatley School</b>	<b>Honorable Mention</b>	<b>Matthew Thomas Cornacchia, Jacob I Mohebban</b>	Categories	<i>Effect of Air Compression on the Levitation Ability of Magnetic Levitation Trains</i>
<b>W. C. Mephram High School</b>	<b>First</b>	<b>Timothy J Langone</b>	Categories	<i>The Effects from Allelopathic Signals of Astroplants Grown in Soil as Compared to Simulated Martian Regolith</i>

W. Tresper Clarke High School	Second	Saniya Jaidev Gaitonde	Categories	<i>Bioinformatic Interrogation of the Evolution Conservation of Recursive Motifs Mediating Multi-Step RNA Splicing</i>
	Second	Deeti Patel	Categories	<i>Increasing the Effectivity of Silver Nanoparticles by Suppressing the Product of Flagellin Increasing The Effectivity of Silver Nanoparticles by Suppressing the Production of Flagellin</i>
Walter G. O'Connell Copiague High School	Honorable Mention	Anna Giselle Carvajal, Edinelly - Peguero-Rosario	Categories	<i>The Efficacy of Sodium Alginate as a Bacterial Mitigatory Agent Against E coli</i>
	Honorable Mention	Raul Mena, Jocelin Carbajal	Categories	<i>The Effect of Organic Post-Treatment Water-Based Flame Retardant Materials on Wooden Structures</i>
West Islip High School	Third	Rachel Qian Shuang Denzler, Michael Pleitez	Categories	<i>Factors that Contribute to Ankle Injuries Within Adolescents</i>
	Honorable Mention	Maximus Hujik Elijah Hujik	Categories	<i>The Leaching of Copper from Antifouling Paint</i>
William Floyd High School	Honorable Mention	Angela Jasmin Ochoa, Victoria Sofia Cordova-Morote	Categories	<i>The Impact Zostera marina Bed Density has on Vertebrate Biodiversity Using Environmental DNA Methods</i>