



Charles Duggan LISEF 2004 Grand Award Winners

All First Place Winners Win an All Expense Paid Trip to ISEF 2004

Behavioral Sciences	Award	Name	School	Title
	Best in Category	Henny Admoni	John L. Miller Great Neck North High School	<i>Counting Features: quantifying discrete parts in visual object identification</i>
		Henny Admoni	John L. Miller Great Neck North High School	<i>Counting Features: quantifying discrete parts in visual object identification</i>
	First	Jarett Goldman	Syosset High School	<i>Modeling Presidential Character: Institutional and Non-Institutional Factors</i>
		Michael Sloyer	Roslyn High School	<i>The Effect of Visual Images and Power Phrases on Contributions to a Hunger Prevention Charity</i>
		Michelle Ciotta	Smithtown High School	<i>The Effects of Exposure to Media Images of the War in Iraq on High School Students in a Suburban New York Area</i>
	Second	Elana Jacobs	Roslyn High School	<i>Using Cognitive Dissonance as a Means to Affect Student Attitudes Towards Cheating</i>
		Lauren Sakofsky	Roslyn High School	<i>The Effect of Reported Popularity and Frame on Perceptions of a Political Candidate</i>
		Julia Kessler	Roslyn High School	<i>Gender Differences in students' Academic Confidence Levels Concerning Advanced Placement Science Classes</i>
	Third	Anuraag Parikh	Roslyn High School	<i>The Impact of Price Level and Odd Pricing on Perceptions of a Restaurant</i>
		Samara Weitz	Long Beach High School	<i>A Comparison Study of Alpha Wave Intensity and Multitasking Abilities</i>
		Naeha Chaudhry	Syosset High School	<i>Factors Influencing College-Aged Students' Perceptions of Racial Profiling</i>
	Honorable Mention	Jenna Friedenthal	Lawrence High School	<i>Why Males Cannot Multitask: Gender Differences in Lateralized Cognition</i>
		Samantha Goldman	Bellmore John F. Kennedy High School	<i>Children's selection of sweet and high-fat foods is influenced by their inherited sensitivity to 6-n-propylthiouracil (PROP): results from a twin study</i>
		Kun Li	Syosset High School	<i>Policy-Oriented Issues Concern and Human Interest-Based Solidary Incentive as Factors in Political Activism in High School and College Level Activism</i>
Jonathan Lipsky		Jericho High School	<i>The Associations Between</i>	

				<i>Trauma and Interpersonal Maladaptive Behavior</i>
		Andrew Malone	Paul D. Schreiber High School	<i>Evaluating Loss Aversion in Riskless Choice Across Trade-Offs of Varying Value</i>
		Patricia Ng	Hauppauge High School	<i>Boning Up High School Students: A Tailored Approach to Osteoporosis Education</i>
		David Randell	South Side High School	<i>The presence of pheromones and their effects on the behavior of Isopods</i>
Biochemistry	Award	Name	School	Title
	Best in Category	Josh Silverman	North Shore High School	<i>SmartGen: A New Approach to the Identification of Effective siRNAs for RNAi Gene Therapy</i>
	First	Suraj Rambhia	Jericho High School	<i>The Neuroprotective Effect of Morphine on Pesticide Induced Cellular Models of Parkinson's Disease</i>
		Josh Silverman	North Shore High School	<i>SmartGen: A New Approach to the Identification of Effective siRNAs for RNAi Gene Therapy</i>
	Second	Rebecca Ajodan	John L. Miller Great Neck North High School	<i>The Effect of CI 1040, LY 294002, and ZD 1839 on the Concentrations of Metabolic Pro-Tumor Proteins in LNCaP Prostate Cancer Cells</i>
		Kristen Lurie	Oceanside High School	<i>Inhibition of the Cell Division Protein FtsZ: A Novel Target of Anti-Tuberculosis Drug Discovery</i>
	Third	Helaina Skop	Sanford H. Calhoun High School	<i>The Identification of Genes Involved in the Formation of the Gonadal Sheath in Caenorhabditis Elegans using RNAi.</i>
		Kevin Wang	Ward Melville High School	<i>A Novel Simulation Method for Protein Structure Prediction</i>
	Honorable Mention	Jeffrey Cohan	Syosset High School	<i>Determining the Micronuclei Frequency and Sister Chromatid Exchange Rate Among Heterozygote Individuals Affected with Bloom's Syndrome</i>
		Sehera Himani	Jericho High School	<i>The kinetics of antagonist binding to the 5-HT3A receptor channel</i>
		Abhishek Patel	Syosset High School	<i>Cisplatin-Induced Apoptosis and Oxidative Stress</i>
	Botany/ Environmental Sciences	Award	Name	School
Best in Category Botany		Michelle Louie	Kings Park High School	<i>Functional Genomics: An Optimized Method for Fluorescent Tagging of Full-Length Gene Products of Unknown Function from Arabidopsis thaliana</i>
Best in Category Environmental		Khaivchandra Ramjeawan	Uniondale High School	<i>ELIMINATION OF ARSENIC FROM WATER AND SOIL: The Use of Hyperaccumulators to Phytoremediate Arsenic</i>

				Salts	
	First	Carol Eisenstat	Bellmore John F. Kennedy High School	<i>The Effects of Cytoskeletal Disrupting Agents in Gossypium hirsutum</i>	
		Michelle Louie	Kings Park High School	<i>Functional Genomics: An Optimized Method for Fluorescent Tagging of Full-Length Gene Products of Unknown Function from Arabidopsis thaliana</i>	
	Second	Jordan Axelrad	Half Hollow Hills HS East	<i>Effect of the Environmental Contaminants, Phosphorus, Cadmium Sulfate, and Pyrethrum on Neuroimmunomodulation in "Mytilus edulis"</i>	
		Khaivchandra Ramjeawan	Uniondale High School	<i>ELIMINATION OF ARSENIC FROM WATER AND SOIL: The Use of Hyperaccumulators to Phytoremediate Arsenic Salts</i>	
	Third	Ajwad Bajwa	Half Hollow Hills HS West	<i>Effects of Electricity and Ultrasound with Antibiotics on Bacillus subtilis Biofilms</i>	
		Neil Haranhalli	Syosset High School	<i>Analysis of Orthology and Molecular Evolution of the Carbonic Anhydrase (CAH) gene of Dioscorea species, Arabidopsis thaliana, and Oryza sativa</i>	
	Honorable Mention	Diana Amari	Smithtown High School	<i>Biological Control of Insect Pests in Stored Grain: Wolf Spiders and Toxigenic Bacteria</i>	
		Benjamin Blanck	Bellmore John F. Kennedy High School	<i>CCA In Pressure-Treated Wood</i>	
		Janalee Campbell	Uniondale High School	<i>Natural Machinery: The use of Chlamydomonas reinhardtii to Generate Hydrogen as a Fuel Source.</i>	
		Katherine Chiang	John L. Miller Great Neck North High School	<i>A Novel Study of Oceanic Bacterial Activity: Alpha-Proteobacteria Enrichment in Aerosols and the Microlayer</i>	
	Chemistry	Award	Name	School	Title
		Best in Category	Kunal Shah	Manhasset High School	<i>Controlling the Growth of Carbon Nanotubes</i>
		First	Kunal Shah	Manhasset High School	<i>Controlling the Growth of Carbon Nanotubes</i>
Second		Stanley Chiang	John L. Miller Great Neck North High School	<i>Surface Electrophoresis on Novel High-relief Microlithographic Arrays</i>	
Third		David Jaung	Half Hollow Hills HS East	<i>Covalent Immobilization of a Repeating Array of Biezymatic Reaction Systems Assembled onto a Sol-Gel Silicate Surface to Create a Sequential Nano-Fabrication Systemv</i>	
Honorable		Amy Brazin	Hebrew Academy of the Five Towns and	<i>The Interaction of scCO2 on Organic and Inorganic</i>	

	Mention		Rockaway	<i>Composites</i>
		Lamia Khan	W. Tresper Clarke High School	<i>The Development of a High-Yielding Synthesis of Isonitriles: Explorations with Tritylisonitrile</i>
Computer Science/ Mathematics	Award	Name	School	Title
	Best in Category Computer Science	Bruce Halperin	Half Hollow Hills HS East	<i>An Extension of the Dining Cryptographers Protocol to Multiparty, Simultaneous Sender-Recipient Anonymous Communication</i>
	Best in Category Mathematics	Brett Harrison	Half Hollow Hills HS West	<i>A Proof of Seymour's Conjecture for All Oriented Graphs</i>
	First	Bruce Halperin	Half Hollow Hills HS East	<i>An Extension of the Dining Cryptographers Protocol to Multiparty, Simultaneous Sender-Recipient Anonymous Communication</i>
		Brett Harrison	Half Hollow Hills HS West	<i>A Proof of Seymour's Conjecture for All Oriented Graphs</i>
	Second	David Gorski	The Wheatley School	<i>On the Properties of Euclid Numbers</i>
		Rui Niu	Syosset High School	<i>Modular Properties of Linear Recursion Sequences</i>
		John Sillcox	Jericho High School	<i>Research Regarding Numbers Which are Polygonal in At Least One Way</i>
	Third	Sotirios Karanikas	Manhasset High School	<i>Using the Stirling Differential Recursive Formula to Relate Stirling Differentials with the Original Elements Used</i>
		Eric Paniagua	Massapequa High School	<i>Development of a Flexible Computational Tool for the Analysis of Networks of Leaky Integrate and Fire Neurons</i>
	Honorable Mention	Danielle Bourguet	Paul D. Schreiber High School	<i>Using Taylor and Maclaurin's Series to approximate square roots</i>
	Engineering	Award	Name	School
Best in Category		Mitchell Fourman	Ward Melville High School	<i>Supercritical Fluids: A Novel Procedure for Increasing the Compatibility and Applications of Polymer Blends</i>
First		Mitchell Fourman	Ward Melville High School	<i>Supercritical Fluids: A Novel Procedure for Increasing the Compatibility and Applications of Polymer Blends</i>
Second		Aryeh Reinstein	Rambam Mesivta High School	<i>The Design of a Selective Gas Permeable Membrane Using Supercritical Fluids</i>
Third		Noah Corwin	Syosset High School	<i>Computer Generated Holograms</i>
Honorable Mention		Noah Jakimo	Syosset High School	<i>Design and Construction of an Affordable PCR Device</i>
		Hannah Zelman	Herricks High School	<i>A Method for Improving the Accuracy of Diffusion Anisotropy Measurements by Diffusion Tensor Magnetic Resonance Imaging</i>
Earth &	Award	Name	School	Title

Space/ Physics	Best in Category Earth & Space	Jason Li	John L. Miller Great Neck North High School	<i>A Numerical Analysis of Gravitational Lensing Events Involving Large Tidal Radius or D25 Isophote Local Group Galaxies</i>
	Best in Category Physics	Yiyi Deng	Ward Melville High School	<i>A Novel Technique for the Quantification of Trapping Force in Optical Tweezers</i>
	First	Yiyi Deng	Ward Melville High School	<i>A Novel Technique for the Quantification of Trapping Force in Optical Tweezers</i>
	Second	Jason Li	John L. Miller Great Neck North High School	<i>A Numerical Analysis of Gravitational Lensing Events Involving Large Tidal Radius or D25 Isophote Local Group Galaxies</i>
	Third	Gayle Denman	Bellmore John F. Kennedy High School	<i>Radiation-Force Elastography with Reflected Ultrasound Beams</i>
	Honorable Mention	Andrew Alkon	Manhasset High School	<i>Forecasting of Sea Level Rise Augmented Storm Surge in the New York Bight Region</i>
		Maanit Desai	John L. Miller Great Neck North High School	<i>A Simplified Method for Characterizing Complex Media by the Coherent Backscattering of Light</i>
Medicine & Health	Award	Name	School	Title
	Best in Category	Jonathan Birnbaum	John L. Miller Great Neck North High School	<i>A Comparison of Flow Through Monoleaflet and Bileaflet Mechanical Heart Valves Utilizing in vitro Digital Particle Imaging Velocimetry and Computational Fluid Dynamics</i>
	First	Jonathan Birnbaum	John L. Miller Great Neck North High School	<i>A Comparison of Flow Through Monoleaflet and Bileaflet Mechanical Heart Valves Utilizing in vitro Digital Particle Imaging Velocimetry and Computational Fluid Dynamics</i>
		Jason Pellegrino	Manhasset High School	<i>Analysis of Metformin's Effect on Brain Insulin Receptors</i>
	Second	Brooke Maurer	Manhasset High School	<i>Identification of Mutations that Contribute to Crohn's Disease in Ashkenazi Jewish Families</i>
		Jeremy Price	Jericho High School	<i>Cell Culture Studies as a Model of the Interaction Between Two Inflammatory Diseases: Periodontitis and Coronary Artery Disease</i>
	Third	Sarah Catanzaro	Paul D. Schreiber High School	<i>Mineralocorticoid Hormones Accelerate Atherosclerosis in Apolipoprotein-E-Deficient Mice</i>
		Laura Mulvey	Carle Place High School	<i>Interplay of Genes Regulated by Estrogen and Diindolylmethane</i>
	Honorable Mention	Daniel Kenger	Paul D. Schreiber High School	<i>First Prototype Mouse-Enabled Web Browser For the Blind</i>
		Nicole Wetherell	Oceanside High School	<i>Promiscuous interplay of the CCAAT displacement</i>

				<i>protein/cut homologue (CDP/cut)with other gene-specific transcription factors.</i>
		Felicia Yen	Half Hollow Hills HS East	<i>Molecular Analysis of Breast Cancer by cDNA Microarrays: Developing a Better Diagnosis and a Potential Cure</i>
Microbiology	Award	Name	School	Title
	Best in Category	Daniel Choi	Syosset High School	<i>DNA Microarray Analysis of Shewanella oneidensis MR-1 Grown in a Microbial Fuel Cell</i>
	First	Daniel Choi	Syosset High School	<i>DNA Microarray Analysis of Shewanella oneidensis MR-1 Grown in a Microbial Fuel Cell</i>
	Second	Nadia Shaikh	Lawrence High School	<i>The Antibacterial Properties of Garlic and Its Potential as an Antibiotic Enhancer</i>
	Third	Hannah Biederman	Half Hollow Hills HS West	<i>Cloning and Developing an Agrobacterium-mediated Export System of Foreign Proteins to Plant Cells.</i>
	Honorable Mention	Tanne Gabler	East Hampton High School	<i>The Synthesis of Monoclonal Antibodies Against Borrelia burgdorferi</i>
		Uri Nazryan	Paul D. Schreiber High School	<i>An Analytical Approach to the Changing of a Gene via Mutation</i>
		Erik Willie	Locust Valley High School	<i>Sources of Codon Usage Bias in the Human Genome</i>
Zoology	Award	Name	School	Title
	Best in Category	Marla Diakow	Paul D. Schreiber High School	<i>The Utilization of Rare SNPs within the Canine Genome as a Means of Breed Identification</i>
	First	Marla Diakow	Paul D. Schreiber High School	<i>The Utilization of Rare SNPs within the Canine Genome as a Means of Breed Identification</i>
	Second	Amelia Breyre	Manhasset High School	<i>Soybean Aphid Host-Plant Specificity</i>
	Third	Andrea Minella	Hauppauge High School	<i>The Genetic Variations and Ecological Preference Differences that Influenced the Polymorphism of the Salamander, Plethodon cinereus</i>
	Honorable Mention	Alexander Fumelli	Smithtown High School	<i>Inferring the Diet of a Bizarre Fossil Crocodyliform: Was Simosuchus clarki Herbivorous?</i>
	Teams	Award	Name	School
Best in Team Category		Ashish Bakshi and Eshin Jolly	Manhasset High School	<i>Designing a System for Versatile Semi-Autonomous Robots</i>
Best in Team Category		Nikhil Gupta and Amrit Das	Manhasset High School	<i>The Effects of Exogenously Applied Taxol and Oryzalin on Cotton Fiber Quality in G. hirsutum, Variety MD51</i>
First		Brinda Alagesan and Yakaitis Scott	Manhasset High School	<i>The Effects of Hsp70 Induction on the Neurodegeneration and Age of Onset of Parkinson's Disease in A30P a-synuclein and Parkin D. Melanogaster.</i>
		Ashish Bakshi and	Manhasset High	<i>Designing a System for</i>

		Eshin Jolly	School	<i>Versatile Semi-Autonomous Robots</i>
		Chelsea Gordon and Feini Qu	Half Hollow Hills HS East	<i>Determining the Solubility Parameters of End-Grafted Polystyrene in Supercritical Carbon Dioxide</i>
		Nikhil Gupta and Amrit Das	Manhasset High School	<i>The Effects of Exogenously Applied Taxol and Oryzalin on Cotton Fiber Quality in G. hirsutum, Variety MD51</i>
		Samuel John and Alexander Slade	Plainview Old Bethpage John F. Kennedy High School	<i>Gap Junctions and GABAergic Interactions in Inspiratory Phase Fast Oscillatory Rhythms</i>
		Storm Liebling, Dustin Liebling, and Kevin Zarrabi	Smithtown High School	<i>THE IN VITRO INHIBITION OF HUMAN NEUTROPHIL ELASTASE BY URSOLIC ACID-IMPLICATIONS FOR TREATMENT OF CYSTIC FIBROSIS</i>
		Eric Mansfield and Ezra Katz	Smithtown High School	<i>Development of Porous Hyaluronan Scaffolds for Wound Healing Applications</i>
		Sean Mehra and Jeffrey Reitman	Jericho High School	<i>Using Nanoparticles to Enhance Polymer Properties for Improved Commercial Applications: Space Lubricants to Nanolithography</i>
	Second	Michael Bisogno and Matthew Cons	Commack High School	<i>Investigation of a New Solution State: Unusual Solution Behavior of Giant Nanosized Inorganic Ions</i>
		Nicholas Calluzzo and Julia Macina	Manhasset High School	<i>The Effects of Caloric Restriction on Metabolism and its Use as a Viable Method of Life Extension.</i>
		Tanmay Chheda and Andrew Song	Jericho High School	<i>Pluronic Hydrogel as a Nucleus Pulposus Replacement in the Treatment of Herniated Discs</i>
		Nicole Farella and Jonathan Nissan	The Wheatley School	<i>A Comparison of Male and Female Learning Preferences Using Verbal and Auditory Stimuli</i>
		Lindsay Fourman, Sarah Fink, and Erica Ravin	Plainview Old Bethpage John F. Kennedy High School	<i>Novel Approaches to Overcome Multidrug Resistant Cancer</i>
		Saumil Kachhy, Anirudh Ramesh, and Justin Sciabbarrasi	Sachem North High School	<i>Synergistic Effects of Reduced Ampicillin Concentration and Alternative Antibacterial Agents on Bacteria</i>
		Shama Patel and Helen Tsai	Manhasset High School	<i>Evaluating the Effects of Caloric Restriction on Cognitive Aging in Caenorhabditis elegans</i>
Jason Rosenblatt and Nick Gullo	Plainview Old Bethpage John F. Kennedy High School	<i>Correlation between Coaching Philosophies and an Athlete's participation and interest</i>		