

Charles Duggan LISEF 2012 Grand Award Winners

All First Place Winners Win an All Expense Paid Trip to ISEF 2012

				Trip to ISEF 2012
	Award	Name	School	Title
	First	Trinity Russell	Commack High School	A Comparison of Laboratory Reared Stock and Recently Outdoor Captured Fruit Flies (Drosophila melanogaster) using Phototaxic, Upward Movement, and Starvation Assays
	Second	Michelle Chyn and Victoria Wei	Manhasset High School	The Role of Ethanol or Methamphetamine Induced Immune- Suppression in Mytilus edulis Hemocytes
Animal Sciences Third Honorable Mention		Lauren Joyce and Emily Passarelli	South Side High Resistance School arenar Shell	The Cost of the Genetic Resistance of Mya arenaria to Paralytic Shellfish Toxins
		Anirudh Chandrashekar	Jericho High School	Identification of Drosophila melanogaster Gustatory Receptor 23a (gr23a) Response in Olfaction and Gustation Mechanisms
	Third	Tanya Jain	Half Hollow Hills High School West	The Cell Soluble UBA1 Inhibitor PYR-41 Impacts Normal Development in Danio rerio
		Harrison Pravder	William A. Shine Great Neck South High School	An Investigation of the Role of Serine/Arginine Domain-Containing Proteins on Fat Metabolism in Drosophila melanogaster Using RNAi
		Dalton Brauer	East Hampton High School	The Effect of Ocean Acidification on Regeneration Rate of Brittle Stars
	Alexis Brown	Sayville High School	Population Ecology of Ectoparasites Of Mormoopid Bats From	

				the Osa Peninsula, Costa Rica
		Michael Emerson, Noman Hamlani and Alexander Harwood	Smithtown High School West/Brentwood High School/Brentwood High School	The effects of crude oil exposure on byssal thread production and mechanics in Mytilus edulis
		Caroline Hsiao	Manhasset High School	Study of Malathion's Effect on Mollusk Mytilus edulis: Its Implications with Animal and Human Health
		Ross Iscowitz	Bellmore - John F Kennedy High School	A Behavioral Analysis of Auditory Decision- Making in Mice
		Lakshmi Nair	William A. Shine Great Neck South High School	The Influence of Anesthesia on FDG Uptake in Rodent Model
	Award	Name	School	Title
	First	Brett Gossett	Bellmore - John F Kennedy High School	Are Some Disabilities More Handicapping than Others? A Comparison of Teacher Grading of Children with Medical, Physical and Behavioral Disabilities
Behavior and		Benjamin Kornick	Roslyn High School	OMG: Look Who Joined Facebook! The Relationship Between Parenting and Adolescent Risk Behaviors
Social Sciences		Nishad Damle	Plainview Old Bethpage JFK High School	Identifying the Role of the Adhesio Interthalamica in Schizophrenia
	Second	Aaron Lewis	Syosset High School	Influence of Quarterly Earnings Reports on the Stock Market Performance of Publicly Traded Technology Companies
		Daniel Sikavi	Roslyn High School	The Relationship Between Psychosocial Factors in the Patient- Oncologist Relationship and Quality of Care: A Study of Breast Cancer Patients

		Sherilyn Gould	Plainview Old Bethpage JFK High School	The Impact of Acculturation on the Intergenerational Congruence Between the Parent and Child in Immigrant Families
Third	Claire Leibowicz	John L. Miller Great Neck North High School	The Neuropsychology of Social Instincts: A Behavioral and Information-Theoretic Analysis of the Cues Involved in Trustworthiness Evaluations	
		Adam Pollack	Paul D Schreiber High School	Keeping Kids in School: The Role of Parental Support for LGBT Students
		Talia Schwartz	Plainview Old Bethpage JFK High School	The Effects of One's Perception of their Parents' Parenting Styles on Bullying and Victimization
		Samantha Asofsky	Bellmore - John F Kennedy High School	The Effect of Repetitive Transcranial Magnetic Stimulation on Obsessive-Compulsive Disorder Patients' Quality of Life
	Honorable Mention	Samantha Finkel	Bellmore - John F Kennedy High School	The Effect of Social Networking Sites on Teenage Relationships and Decisions
		Joanna Finkelstein	Roslyn High School	Look Who's Stereotyping Now! The Effects of Power and Target Gender on Perceptions of a Job Applicant
		Samantha Fradkin	Plainview Old Bethpage JFK High School	The Effects of Wellness Policies on the Low- and High-Nutritional Food Consumption of High School Students with Various Levels of Self-Control
	Maggie Rouder	Lynbrook High School	The correlation of the nutritional awareness and dietary development of young children	
		Michael	Paul D Schreiber	Resource Type and its

		Schweitzer	High School	Effect on Altruistic Decision-Making
		Joan Wang	Syosset High School	Group Polarization and the Bystander Effect in Internet Communications: A Case Study of Online Responses and Reactions in Yahoo News
		Samantha Weintraub	Plainview Old Bethpage JFK High School	The Impact of a Child Leaving the Home for College on the Stability of a Family
	Award	Name	School	Title
	First	April Pun	Jericho High School	DNA Repair Mechanisms: Investigations of Base Excision Repair Pathway in Differentiated and Proliferative Neuronal CAD Cells
Biochemistry	Second	Madison Bondy and Hannah Byrne	South Side High School	An Examination of the Effectivness of the Antimicrobial Properties of Magnifera Indica Kernels
	Third	Daniel Lee	William A. Shine Great Neck South High School	Exploring the Interaction Between ACP and Beta-ketoacyl Synthases
		Hannah Kenagy	Half Hollow Hills High School East	Understanding the Pathogenesis of Acid- Resistant E. coli: Computational Modeling of pH- Dependent Conformational Changes in GadB
	Honorable Mention	Anjali Agarwalla	Herricks High School	A Novel Method For Studying the Oxidative Polymerization of Dopamine and Its Utility in the Study and Treatment of Parkinsonism
		Karan Kumar	North Babylon High School	The Effect of Incense Particulate Matter on Drosophila Melanogaster
		Rebecca Mazur	Bellmore - John F	The Role of PRMT5

			Kennedy High	and MEP50 on the
			School	Proliferation Rate and
				Invasive Potential of
				Hs578T Breast
				Carcinoma Cells.
			Wellington C.	DARTS- Target id in
		Julia Tollin	Mepham High	mycobacterium
			School	tuberulosis
				Improving
			_	Computational
		Daniel Wang	W. T. Clarke High	Simulations of
		Damer traing	School	Biomolecules via
				Radius of Gyration
	Accord	None	Colorel	Restraints
	Award	Name	School	Title A Novel Structure-
				Based Approach to
			Commack High	Predicting the
		Rebecca Alford	School	Functional Effects of
	<u>-</u>		301.001	Mutations in Membrane
	First			Proteins
				Mitigating the Effects of
		Charles Yu	The Wheatley School	the Morphine Signaling
				System- A Novel
				Treatment for Diabetes
				Co-restoration of Type
			Jericho High	III Nrg1 back signaling
		Neil Mehta	School	through depolarization:
				Implications for
	Second			schizophrenia The Neuroprotective
	Second		The Wheatley School	Effects of
Cellular and				Docosahexaenoic Acid
Molecular		Sean Oh		and Lithium Chloride: a
Biology				Novel Pathway
				Implicated in Alzheimer
				Sensitization of Human
			William A. Shine	Breast and Cervical
		Joshua Cho	Great Neck South	Cancer to Anti-cancer
			High School	treatments by Gene
				Therapy of a Novel
		Chivee Cilie		Human Gene.
		Shivee Gilja, Owen Grimm	Manhagast High	Mechanisms of Muscle
	Third	and Stephanie	Manhasset High School	Atrophy Caused by Type 2 Diabetes
		Ying	Scriooi	Mellitus
		<u>' ' '''</u>		Cognitive Deficits in
				Neuropsychiatric
		Carriera Idiese	Commack High	Disorders:
		Savina Kim	School	A Schizophrenia Model
				Associated with
				Neuronal Alpha7

				Nicotinic Acetylcholine Receptor Localization
		Kevin Mathew	Sewanhaka- Elmont High School	Analysis on the regulation and function of DNA Polymerase Eta in Schizosaccharomyces pombe
		Evan Schneider	Roslyn High School	Folate Coated Platinum Nanoparticles: A Novel Innovation for Cancer Treatment
		Asia Brown	Sanford H. Calhoun High School	analysis of altered Gene expression in Human colon cancer cells exposed to the methylation inhibitor 5- aza-2
		Kevin Clare	Northport High School	What is the effect of a specific toxic factor on the cellular death cascade of Death Receptor 6?
		Holly Flores and Austin Wild	Huntington High School/South Side High School	A Study of the Extracellular Matrix in Dental Pulp Stem Cell Differentiation with and without Static Magnetic Fields
	Honorable Mention	Sarah Han and Meenakshi Krishna	Half Hollow Hills High School West/Herricks High School	Oxygen and nitric oxide levels regulate the expression of the angiogenesis inhibitor thrombospondin-2
		Anisha Khemlani and Nidhi Mann	Plainview Old Bethpage JFK High School	Examination of the effect of adding a SNAP-tag to the N-terminus of a Glycine Receptor
		Connie Long	Half Hollow Hills High School East	U2AF35 inhibits Exon 7 Splicing of survival of Motor Neuron Genes
		Samantha Meadows	Sachem High School East	The Effects of Sequestered Versus Secreted MBP-1 on Beta-Amyloid Toxicity in N20.1 Oligodendrocytes
		Danielle Scarano	Plainview Old Bethpage JFK High School	Isolation of High Copy Suppressors of the Meiotic Recombination Defect due to a

				Weakened Version of the Meiosis-specific Mek1 Kinase ADIPOSITY
		Michael Shen	Jericho High School	ASSOCIATED GENES REGULATE THE PROLIFERATION OF 3T3-L1
				PREADIPOCYTES
	Award	Name	School	Title
	First	Steve Jang	Commack High School	Synthesis and Analysis of Phototriggers for Drug Delivery Systems
	Second	Aneesh Shah	Half Hollow Hills High School East	Spectroscopic Characterization of the Reactivity of Substrate Water Molecules in Bio- inspired Catalysts for Water Oxidation
Chomiotry	Third	Sarah Chapin	Herricks High School	Computer-Aided Drug Discovery: Structure- Based Design and Evaluation of Small Molecule Botulinum Neurotoxin Inhibitors
Chemistry	Honorable Mention	Shaheer Alam and Andrew Koe	Plainview Old Bethpage JFK High School/Herricks High School	Enzyme Eluting Polymeric Microparticles
		Kristine Chen	John L. Miller Great Neck North High School	The Preparation of Nanoparticle-Stabilized Antibubbles Optimized for Long Lifetime
		Garima Yadav	Sachem High School North	Discovery of Novel Benzimidazole-based Antibacterial Agents Targeting FtsZ for Potential Treatment of Drug-resistant Tuberculosis
	Award	Name	School	Title
Computer	First	Bailey Liao and Azaria Zornberg	Half Hollow Hills High School West	Effective Prevention of Memory Error Exploitation Through the Use of Memory Address Randomization
Science	Second	Hannah Blumberg	Paul D Schreiber High School	Modeling the Adaptive Venation Network of Physarum polycephalum
	Honorable	Shreyas	Half Hollow Hills	A Comparison of

	Mention	Havaldar and Brian Levy	High School East	Classification Algorithms for Detection of Colon Cancer
		Neil Khosla	East Meadow High School	A Mathematical Model of a Smallpox Attack in a Representative Long Island Town Using the Java Computer Language
		Nicholas Walsh	Syosset High School	Creating a Cyber Security Program in Java Using Application Whitelisting With Polymer Extensions
	Award	Name	School	Title
	First	Nickolas Boroda	Massapequa High School	Hurricane Signatures within Tree Ring Records, Fire Island New York
	Second	Eric Drewitz	Northport High School	The Effects of Hydration State and Synthesis Methods on the Structure of Amorphous Calcium Carbonate
Earth & Planetary Sciences		Neema Patel	Smithtown High School West	Reconstruction of Marine-pH and CO2 Levels during Ordovician using Boron Isotope Composition of Brachiopods
	Honorable Mention	Benjamin Pleat and Raymond Wu	Herricks High School/Jericho High School	A Novel Approach to Approximating Sea Level Rise Using Statistical Methods Applied to United States East Coast Tide Gauge Data
		Susan Wu	John L. Miller Great Neck North	Reactive Transport Model of Anthropogenic
			High School	Carbon Sequestration
	Award	Name	School	Title
Engineering:	First	Andrew Hurst and Zachary Klein	Long Beach High School	The Synthesis of a compound device to maximize solar and wind energy
Electrical & Mechanical	Honorable Mention	Joshua Haimson	Wellington C. Mepham High School	Development of a Robust Open Platform Software Utility for the Modeling & Design of Solar Photovoltaic Systems

	Award	Name	School	Title
	First	Japbani Nanda	W. T. Clarke High School	The Ultimate Delivery Package: Implementing Composite Hydrogels for Use in Cell and Drug Delivery Applications
	Second	Prady Manepalli and Sonia Sethi	Smithtown High School West/Plainview Old Bethpage JFK High School	Functionalization of Nanoparticles via Bingel Reaction to Increase Solubility in Aqueous Media
Engineering: Materials & Bioengineering	Third	Eric Metodiev	West Islip High School	Optimization of Nanoscale Morphology of Polystyrene-Ordered Electron Donor- Acceptor Channels in Organic Photovoltaic Cells
		Nicholas Suss	South Side High School	Effects of Polycaprolactone Electrospun Fibers on Osteogenic Differentiation of Dental Pulp Stem Cells
		Matthew Calo	Sanford H. Calhoun High School	Improving the use of recycled high impact polystyrene in concrete
		Rachel Davis	Smithtown High School East	Engineering Flame Retardant Polymers
		Jason Katz	North Shore Hebrew Academy High School	Stochastic Modeling of Quorum Sensing in Bacteria
	Honorable Mention	Eric Parigoris	Kings Park High School	Low-Intensity Vibration as a Potential Treatment for Wound Healing Through Modulation of the Inflammatory Response and the Differentiation of Macrophage Progenitor Cells under the Challenge of a Bacterial Endotoxin
		Mariyam Qureshi	Valley Stream South High School	Dynamics Underlying Tissue Integrity
	Award	Name	School	Title
Energy & Transportation	First	Nicholas Dipreta and Kevin Li	Manhasset High School	Evaluation of the CuZnO Catalyst In Water Gas Shift Reaction For Enhanced

				Hydrogen Production
	Second	Caroline Walsh	Long Beach High School	Reinventing Solar Cells: The effect of different pigments on the efficiencies of dye- sensitized solar cells
		Jacqueline Kalomiris	Sayville High School	An Analysis of Lipid Biosynthesis and Inhibition in Chlamydomonas reinhardtii
	Honorable Mention	Michael Karavolias	Hauppauge High School	Comparative effects of Various Proteins on Glycine Max Biodiesel Cloud Point
		Melissa Michels and Mike Schulz	Sachem High School North	Alternative sources for ethanol production
	Award	Name	School	Title
	First	Rajkumar Pammal	Commack High School	Improving Reverse Osmosis Membranes for Desalination: The Modification of Cellulose Nanofibers
	Second	Christopher Dipreta and Sai Senthilkumar	Manhasset High School	Transgenic c. elegans: A viable bioassay for Metallic Pollution
Environmental Management	Honorable Mention	Brendan Liu and Kristin Wong	Jericho High School	Investigation of PEGDA and PAN for Filtration and Heavy Metal Adsorption
		Chandler McMillan and Hunter Rogoff	Long Beach High School	A natural solution to eliminate soil pollution: Relationship between Brassica juncea with Trichoderma harzianum and Streptomyces lydicus to hyperaccumulate aluminum from the soil
		Robert Myrick	Sewanhaka High School	Cheap Solar Water Purification for Emergencies
	Award	Name	School	Title
Environmental Sciences	First	Arianne Papa and Jane Smyth	Long Beach High School	Mussels, a natural approach to water quality improvement: Assessing the impact of environmental factors on P. americanus and G. demissa status in Long Island bays and

				applying G. demissa as biofilters
	Second	Timmothy D'Agostino and Devin Dwyer	Northport High School	A Comparative Analysis of the Carbon Sequestration Efficacy of an Anionic Polymer and Indigenous Rain Forest Vegetation
		Jennifer Gil and Terrence Goode	Brentwood High School	The Effect of Crude Oil on the Marine Organisms, juvenile Mytilus edulis and the algal species Nannochloropsis oculata and Isochrysis galbana
		Saad Amer	Patchogue- Medford High School	X-ray Fluorescence: A Study on Contaminants in the Environment and the Distribution of Elements in Trees
	Third	Sarah Matero	Paul D Schreiber High School	A Comparison of North and South Shore Freshwater Ecosystems to Assess the Ability of an Invasive Species, Cabomba aquatica, to Effectively Remove Toxins from the
		Timothy Miller	Cabornba aquatica, to Effectively Remove Toxins from the Environment Single Particle Analyst of Ice Nucleating Aerosol Collected By Aircraft	Single Particle Analysis of Ice Nucleating Aerosol Collected By
		Yousef Aly	Oceanside High School	Tracing the carbon source of arsenic- releasing bacteria in Bangladesh
		Anastasia Cassisi and Emily Schlicht	Locust Valley High School	Onsite Monitoring of Dissolved Oxygen and Nitrogen to Asess the Effects of the Invasive Species of Trapas Natas (Water Chestnut) on a Local Pond
		Jasmin Feliciano	Brentwood High School	The Effects of Ocean Acidification on Hard Coral
		Brian Hastings	Commack High School	The Effects of Water Quality on Growth and Mortality of the Juvenile Hard Clam (Mercenaria

		•		mercenaria)
	Award	Name	School	Title
Mathematical Sciences	First	Kevin Sherwin	Roslyn High School	Classifying Generic Smooth Curves in the Projective Plane Related to Algebraic Curves of Degree 5
	Honorable Mention	Daniel Pollack	Roslyn High School	Modeling Tumor Growth and Quantifying the Duration of Time between Metastasis, Detection, and Mortality in Breast Cancer Patients
	Award	Name	School	Title
		Anoj Ilanges	Oceanside High School	The role of the hippo protein and the hippo pathway in ethanol-induced stress
Medicine & Health Sciences	First	Ruchi Shah	Sachem High School North	Beta-catenin and E- cadherin: novel protein biomarkers for improved diagnosis of precancerous lesions of the cervix
	Second	Sagar Rambhia	Jericho High School	RISK ASSESSMENT OF CARDIOVASCULAR PATHOLOGIES FROM DIAGNOSTICS TO DEVICE OPTIMIZATION: PATIENT-BASED FLUID-STRUCTURE INTERACTION SIMULATION STUDY
		Alina Ranjbaran and Tom Wang	Garden City High School/The Wheatley School	Expanding Leishmaniasis and Cancer Detection Using Molecular Imprinting for a Novel Point-of-Care Diagnostic Device
		Jeremy Weber	Hebrew Academy Of The Five Towns And Rockaways	Etiology and Effective treatment of Oji-Cree diabetes
	Third	Parsa Erfani	Plainview Old Bethpage JFK High School	Anti-inflammatory Potential of IL-27 in Psoriatic and Eczematous Immune Cells
		Michael Fahey	Manhasset High	The effect of P3-Q11 on

	and Jake Shelton	School	the Disaggregation of Q11 In Vivo and In Vitro
	Serife Uzun	Jericho High School	Herbal Treatment of Allergy and Inflammation: Radix Sophorae flavescens Exudate Formononetin Inhibition of TNF-a and IgE
	Christie Wang	Roslyn High School	Cold Shock Protein: A New Target for Attenuating Ischemic Stroke
	William Zhou	Paul D Schreiber High School	Effect of herbal medicine on asthma: implication of mu opiate receptor mechanism
	Jonah Belser	Hauppauge High School	Evaluation of Reperfusion Times in Relation to Interhospital Transfer for Primary Percutaneous Coronary Intervention in 7 Long Island, NY Hospitals
	Nicolette Codispoti	Bellmore - John F Kennedy High School	Quantitative Analysis of the Effects of Two Osteoclast Inhibitors on Improving Bone Properties in Mouse Models of Osteogenesis Imperfecta Using FTIRI and μCT
Honorable Mention	Hillel Friedman	Hebrew Academy Of The Five Towns And Rockaways	A Novel Method of Combating Hematological Cancers- Inducing Cancer Cell Destruction using Kinase Inhibitors
	Gabrielle Lovett	Hebrew Academy Of The Five Towns And Rockaways	The Effects of Neem Oil on Apoptotic Signaling in HCT116 Colon Cancer Cells
	Jonathan McGuire	Valley Stream South High School	Developing a Protocol for Amyloid Beta Quantification that is Accurate, Consistent, and Time Efficient
	Abigail Ritter	Half Hollow Hills High School West	The Role of Post- Translational Modification of SLX4 Mutants in the Fanconi

				Anemia Pathway
		Bradley Settle	Syosset High School	Triiodothyronine Regulation of Thyroid Hormone Transporter Expression
		Sohrab Vatsia	Manhasset High School	Saquinavir Inhibits HMGB1 Induced Cytokine Release
		Erica Weinberg	Sayville High School	An Analysis of Variance of the Effects of Natural Substances on the Inhibition of Calcium Oxalate Crystallization
		Laura Zweifler	Lynbrook High School	Mapping of Phospho1 during Tooth Development, In Vitro and In Vivo
	Award	Name	School	Title
	First	Bilal Siddiqui	Wellington C. Mepham High School	Engineering RCAS-TVA Vectors for Generating a Novel Transgenic Mouse Model of Melanoma
Microbiology	Second	Taylor Trentadue	Smithtown High School East	Characterization of Novel Inhibitors of the Influenza Type A Virus Neuraminidase
	Third	Shaun Holliday and Andrew Wong	Sachem High School East	Use of Herbal Preparations to Control Dental Plaque Biofilm
		Syndi Barish	Kings Park High School	Co-evolution of Gene Promoters due to Gene Adjacency in Saccharomyces cerevisiae
	Honorable Mention	Xiaofei Lin	Ward Melville High School	Creating a Biocompatible Gelatin Model to Analyze the Effects of Substrate Rigidity on Cell Motility and Morphology
		Arvind Viswanathan	Herricks High School	The Effect of Titanium Dioxide Nanoparticles on Pseudorabies Virus Cellular Infection
	Award	Name	School	Title
Physics and Astronomy	First	Shannon Wetzler	Kings Park High School	Novel Determination of the Stopping Power And Other Characteristics of the Quark-Gluon-Plasma Based on Several Jet

				Modification Measurements
	Second	Mark Hamilton	South Side High School	Subwavelength nanostructures to control photovoltaic light absorption and LED light emission
		William Chan and Hunter Dong	Syosset High School/Manhasset High School	Searching For Exomoons Orbiting Kepler Mission Exoplanets Using Transit-Timing and Transit-Duration Variations
	Honorable Mention	Juliana Coraor	Huntington High School	The Impact of Compressive Misfit Strain on Improper Ferroelectricity in Lead Titanate/Strontium Titanate Superlattices
		Alexandra McHale	Smithtown High School East	Element Analysis of Zea Mays var. Rugosa (Sweet Corn) Plant and its Soil Using X-Ray Spectroscopy
	Award	Name	School	Title
Plant Sciences	First	Kathryn Hochberg and Daphne Superville	G. W. Hewlett High School	Unraveling the Gibberellin Signaling Pathway in Panicum virgatum
	Second	Bryan Herbert, Aaron Tabibzadeh and Stephen Tranchina	Manhasset High School	Maximization of Biomass and Lipid Ratio in Chlorella vulgaris to Enhance Biofuel Usability
	Third	Shovon Hasan, Benjamin Kramer and Valery Zajkov	G. W. Hewlett High School	The Role of Calmodulin in Regulating Seedling Germination of Panicum virgatum
		Brandon Levokove and David Velez	Long Beach High School	Sustaining Soil Quality II: The utilization of mycorrhizae innoculation in mitigating stress caused by pollution and degraded soils on Triticum aestivum
	Honorable Mention	Emily Bih	Jericho High School	The utilization of Dendroides canadensis antifreeze proteins to decrease frost damage

			Anthocyanin
	Will Dahl	North Shore High School	Overaccumulation as an Emergent Trait in
			Arabidopsis
		Allopolyploids	
	Elaina Mansley	Wantagh High School	Modifying Auxin
			Pathways in
			Arabidopsis Thaliana
			Improves Plants
			Response To Stressors
		Floral Park	Screening Doliocarpus
	Vishnu Tiwari	Memorial High	Brevipedicellatus for
		School	Toxicity