

## Charles Duggan LISEF 2010 Grand Award Winners

All First Place Winners Win an All Expense Paid Trip to ISEF 2010

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	Award	Name	School	Title
	Best in Category	Alyssa Ehrlich	South Side High School	Effects of Starvation on Wild Type and Adipose60 Mutant Drosophila melanogaster
	First	Alyssa Ehrlich	South Side High School	Effects of Starvation on Wild Type and Adipose60 Mutant Drosophila melanogaster
Animal Sciences	Second	Lori Ying	South Side High School	Female mating patterns and mate quality in the dengue vector mosquito, Aedes aegypti
	Third	Richard Grove	Paul D. Schreiber High School	The expression of lectins and their Implication for Oyster nutrition and Defense
	Honorable Mention	Michael Luke	Plainview Old Bethpage JFK High School	The relationship between genotype, body size, and longevity in Drosophila melanogaster
		Yael Weiss	Oceanside High School	The Food Preference of Adult Diamondback Terrapins (Malaclemys terrapin) in Jamaica Bay
	Award	Name	School	Title
Behavior and Social Sciences	Best in Category	Kevin Xu	Roslyn High School	Factors Related To Adherence To Mammography Screening
	First	Aaron Levine	Roslyn High School	Will They Vote? An Experimental Examination of the Effects of Issue-Based and Character-Based Attack Ads on Intent to Vote and perceptions of the Sponsor and Target
		Kevin Xu	Roslyn High School	factors related to adherence to mammography

				screening
		Joseph Yagoda	William A. Shine Great Neck South High School	Factors that Influence Academic Risk Taking in the Academic Setting
	Second	Ashley Barlev	William A. Shine Great Neck South High School	Degree of Androgyny And Its Impact on Math Performance and Spatial Ability
		Alexandra Camesas	West Islip High School	The role of pediatricians in sports-related injury prevention of adolescents
		Sarah Pak	Roslyn High School	The effect of mandatory assignments on children's intrinsic interest in reading.
	Third	Katie L'Abbate	Plainedge High School	Economic Selection-An analysis of the College Admissions Process: Are Elite Institutions Fair to the Middle- Class?
		Scott Mendlinger	William A. Shine Great Neck South High School	Drop That Doughnut: A Closer Look into Depletion of Self- Control
		John Sullivan	Syosset High School	A Game-Theoretical Analysis of the Equity of Colorado River WAter Distribution
		Jason Desimone	Paul D. Schreiber High School	Psychosocial Interventions for Youths with Aggressive Spectrum Disorders: A systematic Review and Meta-Analysis
Honorable Mention	Hayley Dicken	Plainview Old Bethpage JFK High School	Do You Really Think What You Think? Identifying Implicit and Explicit Prejudice Profiles among Adolescents and Adults.	
		Josh Freeberg	Roslyn High School	The Rebate Debate: Consumers
	Eric Gold	Oceanside High School	Temporal Separation of Stroop Stimulus Features Reveals Neural Substrates of Conflict	

Amarelle Hamo	William A. Shine Great Neck South High School	The effect of Gender stereotypes on the Perception of Female Leaders	
Andrew Ibrahim	Plainview Old Bethpage Jfk Hs	Impact of Gender and Grade Level on High School Students' Need for Structure and Academic Motivation	
Lauren Kobrick	Roslyn High School	Unsafe At Any Speed: A Comparision of Teenage Perceptions of Driving Under the Influence of Marijuana and Alcohol	
Rachel Lacks	Syosset High School	The Effect of Autism on Marital Satisfaction	
Ariel Lefland	Roslyn High School	Albumin and Markers of Inflammation As Predictors Of Worsening BMD In Patients Treated With Corticosteroids For PMR and GCA	
Sarah Pierce	Paul D. Schreiber High School	The Effects of Birth Order and Total Number of Offspring on the Mortality and Survival of Papio Cynocephalus Anubis Infants	
Zachary Porges	Jericho High School	EmotionSelect: Interpreting Emotions through Digital Image Collections	
Kaitlin Prisco- buxbaum	Plainedge High School	It's 10:00: Do You Know What Your Child Is Doing On The Computer?	
Randi Saunders	General Douglas Macarthur High School	An analysis of Social and Economic Variables and the Distribution of Toxic Release Inventory Facilities in Nassau County, NY	
Jaclyn Vingan	Half Hollow Hills High School East	Comparing seasonal and pandemic influenza prevention, knowledge, attitudes, and behaviors in children and their	

				parents in a suburban population.
	Award	Name	School	Title
	Best in Category Biochemistry	Pooja Rambhia	Jericho High School	Modification of Fibrinogen Clotting in the Absence of Thrombin: A Novel Surface Chemistry Approach with Biochemical Applications
	Best in Category Chemistry	Paul Masih Das	Lawrence High School	A Novel chemical synthesis for >1 µm2 Graphene Sheets
	Best in Category Plant Sciences	Sajni Parikh	Herricks High School	The effects of brassinolide and indole-3-acetic acid on Gossypium hirsutum, variety MAXXA GTO
		Paul Masih Das	Lawrence High School	A Novel chemical synthesis for >1 µm2 Graphene Sheets
Biochemistry/ Chemistry/ Plant Sciences	First	Pooja Rambhia	Jericho High School	Modification of Fibrinogen Clotting in the Absence of Thrombin: A Novel Surface Chemistry Approach with Biochemical Applications
	Second	Ruoyi Jiang	Ward Melville High School	Targeting Loop Dynamics in βI/βIII Isotype Tubulin: The Application of In Silico Techniques In Combating Chemotherapy Drug Resistance
		Kevin Zhao	Ward Melville High School	Molecular Dynamics Simulations of Crucial Interactions in the Base Excision Repair Pathway of 8- oxoguanine by Formamidopyrimidine DNA Glycosylase (MutM)
	Third	Julia Budassi	Long Beach High School	Optimization of molecular combing of single-stranded DNA via manipulation of

				biophysical and biochemical conditions
		Sajni Parikh	Herricks High School	The effects of brassinolide and indole-3-acetic acid on Gossypium hirsutum, variety MAXXA GTO
		Zachary Goldsmith	Roslyn High School	Determining potential bioavailability of zinc(II) in saliva by systematic study of model solutions
		Daeyoup Kim	Jericho High School	Chelating Potential of Sugars in Steel Slag via Two Step CO2 Mineral Carbonation
	Honorable Mention	Lauren Knocker	Hauppauge High School	The Effect of Plant Growth Regulators on Controlled Morphogenesis of Potato
		James Lauria	Northport High School	The Effect of Androgen on mRNA and Protein Levels of NMDA Receptor Subunits in Identified Neurons of Rat Prefrontal Cortex
		Devi Mehrotra	Syosset High School	Development of an Assay for Intermolecular Domain Docking in the Hairpin Ribozyme
		Nicole Meyers	Paul D. Schreiber High School	Optimizing the synthesis of a dipyrromethane for porphyrin preparation
		Alyssa Reimer	Plainview Old Bethpage Jfk Hs	Design and Synthesis of C-11-Labeled Tumor-Targeting Modules and A Taxoid- Based Drug Conjugate Containing Dual Tumor-Targeting Modules
		Allison Shen	Garden City High School	Asparagine 119 Comprises a Molecular Toggle: An Investigation of Constitutively Active Mutants of the Metastasis-Promoting Chemokine Receptor

				CXCR4
	Award	Name	School	Title
	Best in Category	Jason Littman	Plainview Old Bethpage JFK High School	The Development of siRNA Delivery Systems for Oncogene Suppression in Human Cancers
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	11130	Ryohei Ozaki	Paul D. Schreiber High School	Neurons and glia exhibit different adhesion complexes in the embryonic chick retina
		Georgios Mourdoukoutas	Plainview Old Bethpage JFK High School	Anesthetic Action of Isoflurane on Human Glycine Receptor Channels
Cellular and Molecular Biology	Second	Alexis Tchaconas	Commack High School	A Genetic Investigation of Autism: The Role of Type III Neuregulin-1/ErbB4 Signaling and Contactin4 Expression in Neurodevelopment
	Third	Nevin Daniel	Ward Melville High School	Novel Techniques with Fluorescent Nanoparticles: Imaging Nanoparticle Drug Delivery Conjugates and Characterizing Traction Stresses of Cancer and Stem Cell Migration Using Digital Image Speckle Correlation
		Charles Starr	William A. Shine Great Neck South High School	The Effect of N- terminal Mutations on Rad54 Function
	Honorable Mention	Akua Boakye- yiadom	Malverne High School	The Potential Factor X: The role of E2f in slp1 expression in Drosophila
		Emma Collin	Harborfields High School	The Effects of Bacciullus Lichenformis on the Degradation of Ink on Recycled Papers
		Danielle Fong	Half Hollow Hills High School West	Establishing Stable Conditional Knock-

		Kevin Liaw	The Wheatley School	down Clones of Human Breast Cancer Cells Harboring Mutated p53 the effect of aging on curcumin resistance of ht-29 colorectal cancer cells
	Award	Name	School	Title
	Best in Category Computer Science	Levent Alpoge	Half Hollow Hills High School West	A Non-Parametric, Massively Parallelized Multiscale Vessel Detection Method for Complex Vascular Structures
	Best in Category Mathematical Science	Joshua Pfeffer	North Shore Hebrew Academy High School	Super Kahler-Ricci Flow
	First	Joshua Pfeffer	North Shore Hebrew Academy High School	Super Kahler-Ricci Flow
Computer Science/ Mathematical Science	Second	Levent Alpoge	Half Hollow Hills High School West	A Non-Parametric, Massively Parallelized Multiscale Vessel Detection Method for Complex Vascular Structures
	Third	Rohin Jethani	Syosset High School	Circle Inversions
		Steven Herzberg	Rambam Mesivta High School	Maximum Rectilinear Crossing Numbers of the Petersen and Generalized Prism Graphs
	Honorable Mention	Eric Leong	William A. Shine Great Neck South High School	An Approach to Line- Circle Collision Detection and Response
	,	William Riley	South Side High School	Improving the Security of a Multitouch Padlock Through Dynamic Time Warping Algorithms
Earth &	Award	Name	School	Title
Planetary Sciences/ Energy & Transportation/ Environmental Management/ Environmental Sciences	Best in Category Earth & Planetary Sciences	Dylan Assael	Syosset High School	An Unexpected Role for Picocyanobacteria in the Marine Silicon Cycle
	Best in Category Energy & Transportation	Kevin Chiu	Farmingdale High School	Novel Investigation into Optimization of Storage, Production, and Economic Viability of Dual Functioning MEA

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Best in Category Environmental Management	Brandon Li	Jericho High School	Pore Size Reduction of Electrospun Polyacrylonitrile (PAN) Scaffolds for High Performance Microfiltration
Best in Category Environmental Sciences	Celline Kim	Manhasset High School	Environmental Toxin 4- Nonylphenol and Autoimmune Diseases: Using DNA Microarray to Examine Genetic Markers of Cytokine Activity
First	Brandon Li	Jericho High School	Pore Size Reduction of Electrospun Polyacrylonitrile (PAN) Scaffolds for High Performance Microfiltration
	Celline Kim	Manhasset High School	Environmental Toxin 4- Nonylphenol and Autoimmune Diseases: Using DNA Microarray to Examine Genetic Markers of Cytokine Activity
Second	Dylan Assael	Syosset High School	An Unexpected Role for Picocyanobacteria in the Marine Silicon Cycle
	Kevin Chiu	Farmingdale High School	Novel Investigation into Optimization of Storage, Production, and Economic Viability of Dual Functioning MEA
Third	Courtney Armstrong	Hauppauge High School	What effect will the use of varying feed stocks have on the quality and carbon stability of biochar?
	Brittany Hsu	Jericho High School	Engineering Chemically Tailored Hybrid Fibrous Adsorbents for Arsenic Remediation
Honorable Mention	Ariana Boltax	John L. Miller Great Neck North High School	The role of bacteria and labyrinthulomycetes in detritus food quality
	Stephanie Chiang	John L. Miller Great Neck North High School	Characterization of aerosolized particles during a cyanobacterial

		bloom in Lake Agawam, NY: Implications for cloud condensation nuclei (CCN) formation
Carly Emmer	Half Hollow Hills High School East	Time Series Study of Quaternary Ammonium Comounds in Sewage Sludge During H1N1 Media Coverage at Various Treatment Facilities with Alternative Sewage Processing Methods
Karrine Guerrier	Uniondale High School	Using Biodiesel Derived Crude Glycerol to Produce Docosahexaenoic Acid (DHA) Rich Microalgae
Brian Kennedy	Paul D. Schreiber High School	Impediments to a Sustainable Future: Obstacles and Solutions for Financing Photovoltaics
Michelle Llanos	Oceanside High School	The Effects of Membrane Thickness and Temperature on the Power Density of a Direct Methanol Fuel Cell
Eric Mintzer	Kings Park High School	An Assessment of Electrochemically Polymerized Chitosan as a Bioremediative Solution for Toxic Chromium Pollution
Mathew Sabu	Elmont Memorial High School	Efficacy of Glycerol in Biological Denitrification & DNA Analysis of Microbial Strains
Benjamin Weiss	Long Beach High School	The effect of simulated environmental conditions on the toxicity release in rubber granules utilized in artificial turf
Michael Zhang	Sachem High School East	Application of the Curie Effect, Stirling Engine, and Seebeck Effect to Harness Energy from

				Waste Heat
	Award	Name	School	Title
	Best in Category Eng: Electrical & Mechanical	Chaimaa Makoudi	General Douglas MacArthur High School	Lighting the Future: The Power Output of Titanium Dioxide Solar Cells Using Various Dyes:
	Best in Category Physics and Astronomy	David Lawrence	Comsewogue High School	A simple method to characterize charge diffusion in CCDs using x-ray illumination
	First	Chaimaa Makoudi	General Douglas MacArthur High School	Lighting the Future: The Power Output of Titanium Dioxide Solar Cells Using Various Dyes:
	Second	David Lawrence	Comsewogue High School	A simple method to characterize charge diffusion in CCDs using x-ray illumination
Engineering: Electrical & Mechanical/ Physics and	Third	Nicholas Sferrazza	Half Hollow Hills High School West	Impact of Insulator Material and Thickness Variation on the Performance of Virtual Frisch-Grid CdZnTe Detectors
Astronomy	Honorable Mention	Andrew Akcelik	Lynbrook High School	The Effect of Various Types of Skin Coverings on the Distance Traveled of a Submersed Hull
		Daniel Katz	John L. Miller Great Neck North High School	Using the Transport Coefficient to Probe the Coupling of the Quark Gluon Plasma Produced in Au+Au Collisions at the Relativistic Heavy Ion Collider
		Andrew Li	Ward Melville High School	An estimate of the viscosity of the quark- gluon plasma produced in Au + Au collisions at the Relativistic Heavy Ion Collider
	Award	Name	School	Title
Engineering: Materials & Bioengineering	Best in Category	Julia Poje	Valley Stream South High School	A Diagnostic Molecular Automaton with Built-in Visual Display for Filovirus Identification

	First	Julia Poje	Valley Stream South High School	A Diagnostic Molecular Automaton with Built-in Visual Display for Filovirus Identification
	Second	Jonathon Greene	Patchogue Medford High School	Ultra Violet Radiation as an Alternative to Pasteurization and its Impact on Global Warming
	Third	Ghazal Erfani	Plainview Old Bethpage JFK High School	Surface Modified pH- Sensitive Liposomes for Targeted Cancer Therapy
		Marco Bertolotti	Paul D. Schreiber High School	Green Concrete: Eliminating the Use of Heat Treatment and Portland Cement in CO2-free Enhanced- Fly-Ash Geopolymer Cement
	Honorable Mention	Michelle Chipetine	West Hempstead High School	Environmentally consciences method of using Copernicia cerifera wax and Apis mellifera wax to create biodegradable plastic
		Brennan Chu	Herricks High School	The Development of a Novel Electrospun Poly(ε- caprolactone) Nanofibrous Scaffold for Facilitating Chondrocyte Growth
		Christina Zhou	Paul D. Schreiber High School	Controlled Struvite and Phosphate Precipitation Using Gravity Belt Thickener Filtrate and Phosphorus Release Supernatant
	Award	Name	School	Title
Medicine & Health Sciences	Best in Category	Jessica Lovett	Hebrew Academy Of The Five Towns And Rockaways	Caspase dependent apoptotic pathways in hct-116 colon cancer cells
	First	Pragya Kakani	Jericho High School	The Novel Use of Fluorescence Resonance Energy Transfer (FRET) To Observe Apoptosis In Oligodendrocytes

		Jessica Lovett	Hebrew Academy Of The Five Towns And Rockaways	Caspase dependent apoptotic pathways in hct-116 colon cancer cells
	Second	Eric Brooks	George W. Hewlett High School	Transition from Indolent to Metastatic Prostate Cancer Characterized through the Health Disparity between African American and Caucasian American Men
	Shyam Venkateswaran	Herricks High School	Investigating the effect of environmental carcinogens on mammary epithelial cells grown as novel three-dimensional structures	
	Third	Pegah Eftekharzadeh	Valley Stream North High School	Body Composition Change in Children and Adolescents treated with Antidepressants, Antipsychotics and Psychostimulants.
Honorable Mention		Brandyn Itzkowitz	William A. Shine Great Neck South High School	Comparison of RNA expression in Metastasized and Non- metastasized Prostate Cancer Cell Lines
		Kurt Baldauf	Sanford H. Calhoun High School	Intermittent and Continuous Negative Airway Pressure: From Conception to Clinical Application
	Eric Borczuk	The Wheatley School	An Examination of Genes whose Expression have an Effect on Prognosis in Stage 1 Lung Adenocarcinoma Patients	
	Valentine Esposito	Smithtown High School East	Cellular In Vitro Evaluation of Anti- Oxidant Reductant Capabilities in MonoMac6 Cells: A Preventative Approach to Reactive Oxygen Species	
		Foram Parikh	Herricks High School	Gene Profiles of Histology and drugs in

				non small cell lung cancer
		Amanda Rizzo	Sayville High School	The Effect of a Repeat Variation in the Human Dopamine Transporter Gene on the Dopaminergic Brain System
		Stephanie Sager	Bellmore John F Kennedy High School	The role of klf6 in lung adenocarcinoma
		Sophie Wang	The Wheatley School	Evaluation of Pulmonary Circulation Time at Rest and under Stress by Cardiac MRI First-Pass Perfusion
	Award	Name	School	Title
	Best in Category	Joshua Lewin- Jacus	Lynbrook High School	The Effects of Sediment Relocation and Grazer Inhibition on the Colonization of Hard Substrates by Microbial Communities
	First	Joshua Lewin- Jacus	Lynbrook High School	The Effects of Sediment Relocation and Grazer Inhibition on the Colonization of Hard Substrates by Microbial Communities
Microbiology	Second	David Park	Herricks High School	Development of Cell Fusion Model for Hepatitis C Virus Interaction with Target Cells
	Third	Marni Wasserman	Commack High School	The Effects of Common Antibiotics on Triclosan Resistant Escerichia coli
		Brandon Kann	Sachem High School North	The Resistance of Escherichia coli to Antiseptics Over Time
	Honorable Mention	Maria Passarelli	South Side High School	The Effect of Point Mutations in the NS2/NS3 Domain of Hepatitis C Virus on Viral Life Cycle
	Award	Name	School	Title
Teams		Berkowitz and Jackie Bokor	Hannah Berkowitz	Long Beach High School
Teams	Best in Category	Peter Massey and Shaunak Bakshi	Manhasset High School	Dual Analysis of the Effects of Sleep Deprivation on

		Berkowitz and	Llamada Darkawita	Classical and Operant Conditioning Responses in Drosophila Long Beach High
		Peter Massey and Shaunak Bakshi	Hannah Berkowitz  Manhasset High School	School  Dual Analysis of the Effects of Sleep Deprivation on Classical and Operant Conditioning Responses in Drosophila
		Rohit Ramani and Neil Pathak	Half Hollow Hills High School East/Herricks High School	Construction of a Contrast-Enhanced Brain-Mimicking Hydrogel and Simulation of the Mechanical Effects of Implantable Brain Electrodes
	First	Ruchi Shah and Garima Yadav	Sachem High School North	The role of Perspiration Constituents in the Attraction of Culex pipiens to Humans
		Salonee Shah and Michelle Leonetti	W.t. Clarke High School/Long Beach High School	Building enhanced bioscaffolds: improving the stability and wound- healing properties of biocompatible scaffolds using hydrogels and electrospun fibers
		Griffin Shapiro and Zakaria Seghrouchni	Long Beach High School	Energy Efficiency: Using Local Water to Increase Heating and Cooling Efficiencies in Residential Application
		Jonathan Tam and James Krach	Manhasset High School	The Effect of Solid Acid, Base, and Enzyme Catalysts on Preparation Time, Transesterification Rate, and Efficiency of Fuel Formation
		Charles Yu and Jan Gong	The Wheatley School/Garden City High School	High Glucose Levels Alter Morphine Signaling Systems: A Novel Pathway for Sugar Addiction
	Second	Rohitvarma Basavaraju, Lina Lin and	Jericho High School/ Plainview Old Bethpage	A 2D approach to molecular imprinting

	Edan Elias	JFK High School /North Shore Hebrew Academy High School	
	lan Marquit and Aaron Wilson	Commack High School	The Design and Construction of a Handheld Pharmaceutical Dispenser
	Kelsey McKenna and Ranjeet Kaur	South Side High School/Half Hollow Hills High School West	The Effects of Various Media Composition on the Toxicity of Inert- Metal Nanoparticles on Human Dermal Fibroblasts and Pre- Adipocytes
	Gurpreet Virdi and Mark Hrvatin	Plainview Old Bethpage JFK High School	Towards Interactive Learning with an Avatar-based Human- Computer Interface
	Anouva Kalra- Lall and Arjun Balakumar	Roslyn High School/The Wheatley School	Supplemental Parkinson
	Aditya Ramesh and Candice Gurbatri	Sachem High School East/Half Hollow Hills High School West	Role of Endogenous Nitric Oxide Production and Natural Compounds on the Formation of Biofilms
Third	Edward Vargas and Sean Oh	Herricks High School/The Wheatley School	The Effects of Docosahexaenoic Acid on Nitric Oxide Release and the Applications for Alzheimer's Disease
	Michael Zhou and Daniel Chun	Jericho High School/ Plainview Old Bethpage JFK High School	Modification of PET via a New Cutinase- Surfactant Biocatalyst
Honorable Mention	Jessica Chen and Monika Haebich	Half Hollow Hills High School West/Half Hollow Hills High School East	Agrin-Induced Mitochondrial Clustering in Relation to the Clustering of Nicotinic Acetylcholine Receptor within the Neuromuscular Junction
Mention	Jonathan Nachman and Sandy Guerrero	North Shore Hebrew Academy High School/Longwood High School	Green Micropatterning: Stamping Candida antarctica Lipase- B onto Poly(caprolactone)
	Kyle O'Neil and Douglas Hoch	South Side High School/Solomon	The Synthesis and Characterization of a

	Schechter High School Of LI	Nanocomposite Blend with Ideal Mechanical and Biodegradable Properties
Andrew Ren and Louis Dietchweiler	Plainview Old Bethpage JFK High School	Biological Assays of Cyanobacteria in Regards to M tuberculosis Inhibition
Josel Ruiz and Kesha Patel	Floral Park Memorial High School	The Correlation Between Core Strength and Flexibility with Back Pain
Mathew Sarcona and Sharon Varghese	Northport High School/Brentwood High School	The Use of Sirius Red in the Quantification of Collagen in Human Bronchial Smooth Muscle Cells and Rat Aortic Extracellular Matrix
Tyler Schwartz and Nicole Dipaoli	Valley Stream North High School	Response of Different- sized Marine Diatoms to a Limiting Nutrient: A study of Dissolved Inorganic Nitrogen
Raazia Syedda and Kelly Taveras	Sachem High School East	Influence of Subliminal Print Advertising on Brain Wave Activity
Brett Teplitz, Thomas McCune and Hayley Gadol	Half Hollow Hills High School East	Mutational Analysis of the Escherichia coli MoeB Protein Provides Insight into the Mechanism of E1-like Enzyme Activation