



# Charles Duggan

## LISEF 2007 Grand Award Winners

All **First Place** Winners Win an All Expense Paid Trip to ISEF 2007

	Award	Name	School	Title
<b>Behavioral Sciences</b>	<b>Best in Category</b>	<b>Mary Martha Douglas</b>	Manhasset High School	<i>Potential Physiological Difficulties Associated with the White Gene as a Phenotypic Marker in w1118 and CS Drosophila</i>
		<b>Sarah Cordova</b>	Kings Park High School	<i>An evaluation of the effects of No toys, A suspended toy, and a Free Toy on the negative and positive behaviors of weaned pigs.</i>
	<b>First</b>	<b>Mary Martha Douglas</b>	Manhasset High School	<i>Potential Physiological Difficulties Associated with the White Gene as a Phenotypic Marker in w1118 and CS Drosophila</i>
		<b>Scott Greenberg</b>	Syosset High School	<i>Adolescent Tanning as Dependent Behavior</i>
		<b>Sarah Kirsch</b>	Ward Melville High School	<i>Gender Differences in Hypersensitivity Behavior in a Rat Model of Autism</i>
		<b>Eric Ascher</b>	Oceanside High School	<i>Improving Comprehension and Compliance with Informed Consent for Research</i>
	<b>Second</b>	<b>Matthew Jeffreys</b>	Plainedge High School	<i>Many Schools Left Behind: An Economics Analysis of the Efficiency and Equity of Funding Streams Under No Child Left Behind and their applications to Specific Demographics</i>
		<b>Michael Klein</b>	Lawrence High School	<i>Hypnopaedia: A Study on the Ability To Learn While Sleeping</i>
		<b>Alec Slatky</b>	Massapequa High School	<i>Voter Preferences Modeled Under Hierarchical Clustering Conditions</i>

	Third	<b>Maria Gordon</b>	W. T. Clarke High School	<i>All In? How High are the Stakes?: A Longitudinal Analysis of Adolescent Gambling in a Suburban Cohort</i>
		<b>Raymond Kim</b>	Roslyn High School	<i>The Effects of Smoking on Teenagers</i>
		<b>Jenessa Malin</b>	Syosset High School	<i>The Relationship Between Adolescent Self-control and Music and Movie Piracy</i>
		<b>Lucas Neill</b>	Roslyn High School	<i>The Effect of Clothing Type and Color on Perceived Competitiveness and Ability of Basketball Players</i>
	Honorable Mention	<b>Lauren Fleischer</b>	South Side High School	<i>An Exploration of the Relationship between Weight Loss Advertising and Demographics</i>
		<b>Azadeh Issapour</b>	Syosset High School	<i>Assessing Trust Levels of Teenagers and their Parents in Major Institutions</i>
		<b>Jessica Nussbaum</b>	Roslyn High School	<i>Can Social Norms Messages Decrease Teens' Drinking Behavior and Attitudes More Than Traditional messages?</i>
		<b>Candace Receno</b>	W. C. Mephram High School	<i>Investigating the "Middle Seat Syndrome". A Study on Commuter Seat Selection and Territoriality</i>
		<b>Katherine Schneider</b>	Lawrence High School	<i>Why Won't Your Notice Me? How the Identity of the Reporter Influences the Under-Diagnosis of Girls With ADHD</i>
		<b>Mingyang Shan</b>	Sanford H. Calhoun High School	<i>A Comparison of Alcohol Metabolism Rates of Whites and Asians within Conditioned Light and Heavy Drinking Levels</i>
	<b>Biochemistry</b>	<b>Award</b>	<b>Name</b>	<b>School</b>
<b>Best in Category</b>		<b>Stacy Feinsot</b>	Lawrence High School	<i>The Synthesis and Characterization of Innate Immunity Inhibitors</i>

	First	Stacy Feinsot	Lawrence High School	<i>The Synthesis and Characterization of Innate Immunity Inhibitors</i>	
		Leah Libresco	The Wheatley School	<i>Identifying Anticancer Drug Targets through a Novel Synthesis of RNAi and Microarray Technology</i>	
	Second	Steve Benay	Smithtown High School West	<i>Structure and Membrane Interactions of FNIII-1, a Fibronectin Growth Factor Binding Domain, in Complex with Platelet-Derived Growth Factor</i>	
		Kenneth Mandel	North Shore High School	<i>The Effects of Human Growth Hormone and Insulin-Like Growth Factor-I on Bovine Articular Cartilage Extra-Cellular Metabolism</i>	
	Third	Shirin Bajaj	Syosset High School	<i>The Application of Potentiometric Response and Polyaniline Films to the Creation of an Antibody-Antigen Biosensor</i>	
		Crystalee Forbes	Uniondale High School	<i>Cell growth, Cytoskeletal structure, and Protein Expression in the presence of Cloisite Na+</i>	
	Honorable Mention	Siddharth Ninan	Paul D. Schreiber High School	<i>Optimization of Ethanol Production in Saccharomyces cerevisiae Using Glucose Metabolism Models and MATLAB</i>	
		Christine Perry	Kings Park High School	<i>Determining the Target Cells of CNGA5-Positive Synaptic Terminals in the Zebrafish Pituitary</i>	
	Botany/ Zoology	Award	Name	School	Title
		Best in Category Botany	Scott Peters	John F Kennedy High School - Bellmore	<i>Analysis of the Arabidopsis FUSED Ortholog: Is it Required for Cell Division?</i>
Best in Category Zoology		Max Levy	Sanford H. Calhoun High	<i>Orthologs and paralogs in a multi-species</i>	

			School	<i>analysis of the evolution of the type II hair keratins</i>	
	First	Scott Peters	John F Kennedy High School - Bellmore	<i>Analysis of the Arabidopsis FUSED Ortholog: Is it Required for Cell Division?</i>	
	Second	Max Levy	Sanford H. Calhoun High School	<i>Orthologs and paralogs in a multi-species analysis of the evolution of the type II hair keratins</i>	
	Third	Matthew Klebanoff	John F Kennedy High School-Bellmore	<i>Possible role of the cytoskeleton in cotton (Gossypium hirsutum, cultivar MD51) fiber development</i>	
	Honorable Mention	Adam Borowski	Plainview Old Bethpage JFK High School	<i>interactions</i>	
		Erica Brown	Bellport High School	<i>Management of Phragmites australis with the Injection of a Saline Solution</i>	
		Stephanie Goldstein	Oceanside High School	<i>A Study of Stranded Grey Seals on Long Island, New York</i>	
		Chris Ravn	South Side High School	<i>The Effect of the Presence of the Predatory Asian Shore Crab Hemigrapsus sanguineus on the Shell Possession Behavior of the Hermit Crab Pagurus longicarpus</i>	
	Chemistry	Award	Name	School	Title
		Best in Category	Michael Ding	Glen Cove High School	<i>DNA Electrophoresis on Nanoporous Polyethersulfone Membrane Surfaces</i>
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Second		Samuel Breidbart	Syosset High School	<i>Conserving History: Using a Ferrozine/Hydroquinone treatment to Inhibit Cellulose Oxidation Caused by Iron Gall Ink</i>	
Third		Alex Yang	Brentwood High	<i>Electron Transfer in</i>	

			School	<i>Oligofluorenes for Application in Photovoltaic Cells</i>
<b>Computer Science/ Mathematics</b>	<b>Award</b>	<b>Name</b>	<b>School</b>	<b>Title</b>
	<b>Best in Category Computer Science</b>	<b>Theodore Tzanetos</b>	Plainview Old Bethpage JFK High School	<i>Aiding the Visually Impaired Through the use of Integrated Computer Systems</i>
	<b>Best in Category Mathematics</b>	<b>Eric Sporkin</b>	Syosset High School	<i>Reptend primes in alternate bases</i>
	<b>First</b>	<b>Theodore Tzanetos</b>	Plainview Old Bethpage JFK High School	<i>Aiding the Visually Impaired Through the use of Integrated Computer Systems</i>
	<b>Second</b>	<b>Eric Sporkin</b>	Syosset High School	<i>Reptend primes in alternate bases</i>
	<b>Third</b>	<b>Stefan Muller</b>	Paul D. Schreiber High School	<i>The Effects of 3D Transformations on Volume and Surface Area</i>
	<b>Honorable Mention</b>	<b>Matthew Alpert</b>	Lawrence High School	<i>A Novel Proof of Crossing Numbers and An In-Depth Investigation of the Relationship Between the Maximal and Minimal Crossings of Complete Graphs</i>
		<b>Kenneth Bongort</b>	North Shore High School	<i>Collusion-Secure Fingerprinting for Java Code</i>
<b>Earth/ Environmental/ Space Sciences</b>	<b>Award</b>	<b>Name</b>	<b>School</b>	<b>Title</b>
	<b>Best in Category Environmental Science</b>	<b>Rachel Stephan</b>	Kings Park High School	<i>Development of a novel method for eliminating polychlorinated biphenyls from the environment.</i>
	<b>Best in Category Space Science</b>	<b>Fangfei Shen</b>	Roslyn High School	<i>Cataloguing Significant Galactic Events as Gravitational-Wave Search Candidates</i>
	<b>First</b>	<b>Rachel Stephan</b>	Kings Park High School	<i>Development of a novel method for eliminating polychlorinated biphenyls from the environment.</i>
	<b>Second</b>	<b>Fangfei Shen</b>	Roslyn High School	<i>Cataloguing Significant Galactic Events as Gravitational-Wave Search Candidates</i>
	<b>Third</b>	<b>Matthew</b>	Harborfields High	<i>The American Slipper</i>

		<b>Reichert</b>	School	<i>Snail (C. Fornicata) as an alternate prey item for the sea star A. Forbesi, to the benefit of the Eastern Oyster (C. Virginica).</i>
	<b>Honorable Mention</b>	<b>Alexis Mychajliw</b>	Paul D. Schreiber High School	<i>Comparative river characterization and ecological study of two Hudson River tributaries</i>
		<b>Erin Steigerwald</b>	Syosset High School	<i>The Effect of Varying Phosphorous Environments on the Growth of Cyanobacteria</i>
<b>Engineering</b>	<b>Award</b>	<b>Name</b>	<b>School</b>	<b>Title</b>
	<b>Best in Category</b>	<b>Nandini Venkateswaran</b>	Herricks High School	<i>Synthesis of Novel Cupric Oxide (CuO) Nanostructures for Gas Sensing and Catalysis Applications</i>
	<b>First</b>	<b>Nandini Venkateswaran</b>	Herricks High School	<i>Synthesis of Novel Cupric Oxide (CuO) Nanostructures for Gas Sensing and Catalysis Applications</i>
	<b>Second</b>	<b>Jason Strauss</b>	North Shore Hebrew Academy High School	<i>Polymer Confinement in 3D &amp; NanoParticle Stabilization: The Miniaturization of NanoLithography</i>
	<b>Third</b>	<b>Maxinder Soni</b>	The Wheatley School	<i>Controlled release study of biodegradable nanofibers incorporated with lidocaine</i>
	<b>Honorable Mention</b>	<b>Alexander Egan</b>	Manhasset High School	<i>Macro to Nanomechanics study of different length auxetic foam specimen infused with various nanosized particles</i>
		<b>Benjamin Mueller</b>	Great Neck North High School	<i>Investigation of Flexural Properties of Functionally Graded Syntactic Foams</i>
<b>Medicine &amp; Health</b>	<b>Award</b>	<b>Name</b>	<b>School</b>	<b>Title</b>
	<b>Best in Category</b>	<b>Michael Hagler</b>	Rambam Mesivta	<i>Sophorolipids: A Novel Therapy for Asthma and Other Diseases of Altered IgE Regulation</i>
	<b>First</b>	<b>Michael Hagler</b>	Rambam Mesivta	<i>Sophorolipids: A Novel Therapy for Asthma and</i>

				<i>Other Diseases of Altered IgE Regulation</i>
		<b>Kristin Hall</b>	Smithtown High School East	<i>Inducing Stem Cell Differentiation and Detecting Cancer on the Single-Cell Level Using Biomechanics</i>
		<b>Jenna Kahn</b>	Roslyn High School	<i>Do pediatricians obtain enough information to detect patients at risk for hypertrophic cardiomyopathy?</i>
	<b>Second</b>	<b>Benjamin Jaffe</b>	Paul D. Schreiber High School	<i>JNK inhibition by siRNA in an oxidant injury model</i>
		<b>Olivia Swanson</b>	Kings Park High School	<i>Determining the Effect of 4-phenylbutyrate on the Expression of Connexin-43 in Cervical Cancer Cells and Cardiomyocytes</i>
		<b>Qi Yu</b>	Jericho High School	<i>Nox2 NADPH oxidase-derived free radicals play an important role in cortex-controlled motor activity.</i>
	<b>Third</b>	<b>Nicole Khezri</b>	Great Neck North High School	<i>The Role of Integrin-Linked Kinase in Wound Healing: Contractile Signaling and Extracellular Matrix Organization</i>
		<b>Alison Liu</b>	Manhasset High School	<i>glia maturation factor binding protein in c6 glioma cells, n18 neuroblastoma cells and mouse brain homogenate.</i>
		<b>Jennifer Schindler</b>	Oceanside High School	<i>Gene Polymorphisms Associated with Mutant Biomarkers in Vinyl Chloride Factory Workers</i>
	<b>Honorable Mention</b>	<b>Christopher Catalano</b>	Paul D. Schreiber High School	<i>Microvascular Abnormalities In Contact Lens Users: A Real-Time Computer-Assisted Intravital Microscopic Study</i>
		<b>Ankuri Desai</b>	Ward Melville High School	<i>Engineering Pluronic Polymer Hydrogels for Simulation of Synovial</i>

				<i>Fluid</i>
		<b>Joshua Kaufman</b>	Ward Melville High School	<i>The vital roles of connexin 40 and connexin 32 in cardiac conduction and homeostasis</i>
		<b>Aashish Shah</b>	Half Hollow Hills High School West	<i>Genetic Investigation of Syndromes Caused by X Chromosome Abnormalities</i>
<b>Microbiology</b>	<b>Award</b>	<b>Name</b>	<b>School</b>	<b>Title</b>
	<b>Best in Category</b>	<b>Matthew Seigerman</b>	Herricks High School	<i>Isolation and Characterization of wasabia japonica as a potential natural antibiotic</i>
	<b>First</b>	<b>Matthew Seigerman</b>	Herricks High School	<i>Isolation and Characterization of wasabia japonica as a potential natural antibiotic</i>
	<b>Second</b>	<b>Denisha Bacchus</b>	Elmont Memorial High School	<i>Decoding the Role of Quorum Sensing in Nonpathogenic Biofilms</i>
	<b>Third</b>	<b>Justin Schumacher</b>	Smithtown High School West	<i>Metabolic Abnormalities In HIV-1 Infection</i>
	<b>Honorable Mention</b>	<b>Tyler Mantaring</b>	Elwood-John H. Glenn High School	<i>The Antibacterial Effects of Tea Tree Oil</i>
		<b>Christine Schindler</b>	Oceanside High School	<i>The Fluorescence Intensity of GFP in Measuring Legionella pneumophila</i>
<b>Physics</b>	<b>Award</b>	<b>Name</b>	<b>School</b>	<b>Title</b>
	<b>Best in Category</b>	<b>Hamsa Sridhar</b>	Kings Park High School	<i>The Construction and Optimization of an Inverted Optical Tweezers</i>
	<b>First</b>	<b>Hamsa Sridhar</b>	Kings Park High School	<i>The Construction and Optimization of an Inverted Optical Tweezers</i>
	<b>Second</b>	<b>Benjamin Leibowicz</b>	Great Neck North High School	<i>The Tolman VII Solution and the Upper Limit to the Central Density of a Neutron Star</i>
	<b>Third</b>	<b>Ruizhi (Rebecca) Yu</b>	Ward Melville High School	<i>On the Brink of Chaos: Study Of Fermi-Pasta-Ulam Effects In 2D</i>
	<b>Honorable Mention</b>	<b>Lindsey Garay</b>	Oceanside High School	<i>A Virtual Instrument and Magnetic Field Environment for a</i>



				<i>Microscopic Magnetic Atom Trap</i>
		<b>Victoria Hung</b>	Smithtown High School West	<i>A Novel Mathematical Model of Single and En Masse Fibroblast Migration on Hydrogels</i>
<b>Teams</b>	<b>Award</b>	<b>Name</b>	<b>School</b>	<b>Title</b>
	<b>Best in Team Category</b>	<b>Jinju Yi and Vijay Jain</b>	Plainview Old Bethpage JFK High School / Herricks High School	<i>Surface Molecular Imprinting of a Nanoscale Transducer for the Early Detection of Cancer</i>
		<b>David Chang and Lukasz Mosakowski</b>	Manhasset High School	<i>Microfluidic Mixing by Segmented Flow</i>
	<b>First</b>	<b>Erin D'Agostino and Whitney Quackenbush</b>	Manhasset High School	<i>Exploring the Effects of Various Stressors on the Body Fat Storage and Content of Invertebrate Model Organisms Drosophila melanogaster Caenorhabditis elegans</i>
		<b>Adam Fields and Alex Ramek</b>	Jericho High School/ Hebrew Academy Of The Five Towns And Rockaways	<i>Detecting Cancer in Living Tissue with Single Cell Precision</i>
		<b>Emily Levine and Danielle Lent</b>	Stella K Abraham High School For Girls	<i>Optimizing Recycled Polymer Blends Using Supercritical Carbon Dioxide</i>
		<b>Daniel Stewart and Adam Johnson</b>	Paul D. Schreiber High School	<i>An Algorithm for Removing Event Pileup and its Application to 200 GeV Au+Au Collisions at RHIC</i>
		<b>Jonathan Suncar and Kemeisha Patterson</b>	Uniondale High School	<i>Making your enemy your friend:using integrated pest management of noxious weed extract (ipm)</i>
		<b>Matthew Woo and Austin Chang</b>	Manhasset Hs	<i>The Effect of Fluid Mechanical Pressure on Regeneration in Planarian</i>
		<b>Jinju Yi and Vijay Jain</b>	Plainview Old Bethpage JFK High School / Herricks High School	<i>Surface Molecular Imprinting of a Nanoscale Transducer for the Early Detection of Cancer</i>
		<b>Second</b>	<b>Vikas Anand</b>	Jericho High

		<b>and Esther Kwak</b>	School	<i>the Fabrication of Alginate Microspheres for the Sustained Release of Lidocaine</i>
		<b>James Corines and Chuan Hao Chen</b>	Manhasset High School	<i>Silver Nanoparticles as an Antibiotic Agent for P.putida, P. fluorescens, and S. epidermidis Biofilms</i>
		<b>Jacob Loewenstein and Brienne Kugler</b>	Hebrew Academy Of The Five Towns And Rockaways/ Jericho High School	<i>Controlling Metal/Polymer Adhesion: The Enhancement of Microlithography and The Formation of Nanowires</i>
		<b>Shuo Qiu and John Kucharczyk</b>	Manhasset High School	<i>Characterization of NOAA Active Region 10930</i>
	<b>Third</b>	<b>Jeanette Cheng and Chen Zhang</b>	William A. Shine Great Neck South High School	<i>Transcutaneous Electrical Nerve Stimulation Promotes the Production &amp; Release of Nitric Oxide in Nerve Tissue</i>
		<b>Marina Kondo and Sangmi Ahn</b>	Plainview Old Bethpage JFK High School	<i>Motivations For Volunteering</i>
		<b>Radha Parameswaran and Victoria Smith</b>	Plainview Old Bethpage JFK High School	<i>Determining the Mechanisms of Salt Tolerance in Invasive Japanese Knotweed</i>
		<b>Charles Warshaw and Taylor Oshan</b>	W. C. Mephram High School	<i>The effect of Thermal Compound Composition on Computer Performance</i>
	<b>Honorable Mention</b>	<b>Valerie Craven and Jennifer Kistama</b>	Long Beach Senior High School	<i>Vaccines from Bacteria Incapable of Survival in Homeotherms</i>
		<b>Lara Fourman and Mehwish Ansari</b>	Plainview Old Bethpage JFK High School	<i>Popular Views of Presidential Power</i>
		<b>Daniel Fourman and Jake Bryant</b>	Ward Melville High School	<i>Methane Hydrate: A Revolutionary Alternative Energy Source.</i>
		<b>Shyam Rajan and Amrita Ramakrishnan</b>	Half Hollow Hills High School West/Ward Melville High School	<i>Hydrogen Peroxide and Parkinson's Disease</i>

		<b>Dhruv Vasishtha and Brian Lee</b>	Roslyn High School/Manhasset High School	<i>the effects of levodopa and nicotine on the cyp2d6 enzyme: the discovery of a healthier morphine</i>
		<b>Matthew Zaringhalam and Michelle Bowers</b>	Massapequa High School	<i>Three-Dimensional Columnar Landslide Model Development and Anyalysis</i>