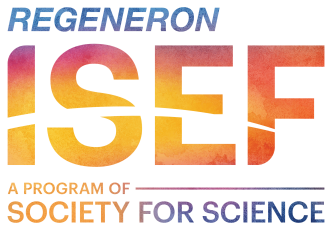


REGENERON



Regeneron Greater Capital Region Science and Engineering Fair, Inc.

Hosted by Rensselaer Polytechnic Institute, Troy, NY
March 16, 2024

Presenting Sponsor



Major Support



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MOMENTIVE™



GCRSEF Program

March 16, 2024

Time	Event
7:30-8:30 A.M.	Students arrive and set up projects (breakfast available in Sage Lobby)
8:00-9:00 A.M.	Judges receive orientation (Dr. Matt Nielsen and Dr. Dan Norton)
8:35-8:55 A.M.	Welcome to students and important information (Joan Wagner, Fair Director)
9:00-11:30 A.M.	Morning student interviews
9:00 A.M.	Q&A Session for teachers and parents on completing ISEF Forms in Sage Auditorium hosted by Dr. Christine Zhao and Mrs. Gina Reals
11:30-12:30 P.M.	Lunch (in Sage), book lottery
12:30-2:20 P.M.	Afternoon student interviews
2:00 PM	Q&A Session for teachers and parents on completing ISEF Forms in Sage Auditorium hosted by Mrs. Fran Lohnes
2:30-4:00 P.M.	Open to public
4:00-4:15 P.M.	Cleanup exhibit area. Pack up projects or leave outside of room to pick up after awards ceremony. Walker place projects clips in box by door of room. Sage, leave clips in box outside of Sage Auditorium.
4:30-6:30 P.M.	Reception and Awards Ceremony: DCC 308 (Follow signs)
	Presentation of Awards
Special Awards	Presented by Dr. Matt Nielsen, GE Global Research and Dr. Dan Norton, Regeneron Pharmaceuticals, Coordinating Judges
Grand Prize Awards	Dean of the Rensselaer School of Science: Dr. Curt Breneman
\$50,000 Rensselaer Scholarship	Dr. Curt Breneman

22-Project Category Abbreviations

Animal Science (ANIM) or (AS)
Behavioral and Social Sciences (BEHA)
Biochemistry (BCHM)
Biomedical and Health Sciences (BMED)
Biomedical Engineering (ENBM)
Cellular and Molecular Biology (CELL)
Chemistry (CHEM)
Computational Biology and Bioinformatics (CBIO)
Earth and Environmental Sciences (EAEV)
Embedded Systems (EBED)
Energy: Sustainable and Materials Design (EGSD)
Engineering Technology: Statics and Dynamics (ETSD)
Environmental Engineering (ENEV)
Materials Science (MATS)
Mathematics (MATH)
Microbiology (MCRO)
Physics and Astronomy (PHYS)
Plant Sciences (PLNT)
Robotics and Intelligent Machines (ROBO)
Systems Software (SOFT)
Technology Enhances the Arts (TECA)
Translational Medical Sciences (TMED)

Fair Judges

First Name	Last Name	Affiliation
Pradeep	Atrey	University at Albany
Samvel	Avagyan	Regeneron Pharmaceuticals
Saiful	Basir	Regeneron Pharmaceuticals
Milivoj	Brun	GE-GRC, retired
Michael	Capovani	GlobalFoundries
Jared	Carpentier	Regeneron Pharmaceuticals
Tahira	Catten	Regeneron Pharmaceuticals
Seema	Chaturvedi	Siena College
Yi Liu	Chen	Regeneron Pharmaceuticals
Daniel	Conley	Regeneron Pharmaceuticals
Spencer	Davidson	US Air Force
Meghan	DeNitto	Maria College
Matthew	DeStefano	Momentive Performance Materials
Mark	Doherty	GE Vernova Advanced Research Center
Cooper	Dunn	Navy ROTC Unit RPI
Susanne	Erb	GlobalFoundries Inc.
Brian	Gregg	Curia Global
Andrew	Hall	Naval Nuclear Laboratory
Ryan	Harm	Regeneron Pharmaceuticals
Sam	Harrington	Eurofins/Regeneron
Greg	Hart	GlobalFoundries
Stacey	Helming	Regeneron Pharmaceuticals
Eric	Herbst	GlobalFoundries
Noopur Dilip	Jamnikar	General Electric
Kideok	Jin	Albany College of Pharmacy and Health Sciences
Huseyin	Karakus	Regeneron Pharmaceuticals
Anagha	Khandekar	NY State Dept. of Health
Margarita	Kirova-Snover	Rensselaer Polytechnic Institute
Lingyun	Li	Wadsworth Center
Michael	Mendez	Naval ROTC Unit RPI

First Name	Last Name	Affiliation
Clarissa	Miller	Momentive Performance Materials
Michael	Natole, Jr.	Regeneron Pharmaceuticals
Daniel	Norton	Regeneron Pharmaceuticals
Tristan	Nowak	Wadsworth Center
Sophie	Nowell	Intertek
Malik	Padellan	Regeneron
Usha	Palaniswamy	Maria College
Manjunatha	prabhu	GlobalFoundries Inc.
Cheyenne	Rinehart	Regeneron Pharmaceuticals
Ivan	Rivera Torres	Regeneron Pharmaceuticals
Corelle	Rokicki	Regeneron Pharmaceuticals
Mark	Rovereto	GlobalFoundries
Yevhen	Samotyuk	GlobalFoundries
Christopher	Schmidt	Regeneron Pharmaceuticals
Abhishek	Shandilya	Green Action Studio
Tracy	Sherman	Nationalgrid
Kimberly	Spica	Global Foundries
Aishwari	Talhan	RF SUNY
Hy	Taylor	Employer Support of the Guard and Reserve
iilani	Taylor	Employer Support of the Guard and Reserve
Carla	Theimer	Maria College
Mindy	Townsend	Siena College/ Dudley at Siena
Nilesh	Tralshawala	Northrop Grumman Corporation
Cyndel	Vollmer	Regeneron Pharmaceuticals
Chris	Walcek	University at Albany
Zhaoxing	Wang	Regeneron Pharmaceuticals
Jeff	Wegner	Naval Nuclear Laboratory
James	Williams	Regeneron Pharmaceuticals
Gregory	Wolosen	Regeneron Pharmaceuticals
Siu Wah	Wong-Deyrup	Regeneron Pharmaceuticals,
Weilan	Zhang	University at Albany

Junior Division Projects (T = Team)

Project Number	Name	Grade	Assigned Room	Project Title
J-ANIM-001T	Amelia Cripps	7th	Sage Hallway - 4th Floor	Raving Roaches in Your Residence!
J-ANIM-001T	Leia Cannon	7th	Sage Hallway - 4th Floor	Raving Roaches in your Residence!
J-BEHA-001	Alexa Jansen	8th	Sage Hallway - 4th Floor	The Effect of Tik Tok on Self-Esteem
J-BMED-001	Kenadee Culver	8th	Sage Hallway - 4th Floor	pH v.s. Painkillers... The Effect of pH on the Solubility of Advil
J-EAEV-001	Keagan Wert	8th	Sage Hallway - 5th Floor	Getting the Oil out of Your Soil... The Study of Mycoremediation
J-EGSD-001	Claire Fowler	8th	Sage Hallway - 5th Floor	The Impact of Partial vs. Full Discharge on AA Lithium-Ion Battery Longevity
J-ETSD-001	Ella Celani	8th	Sage Hallway - 4th Floor	Vacation or Evacuation. Is There a Way to Prevent Erosion or Runoff?
J-ETSD-001T	Jake Davis-Barron	7th	Sage Hallway - 5th Floor	There's an Ex-plane-ation: The Effect of the Length of Wings on How far Airplanes Fly
J-ETSD-001T	Gabriel Radovich	7th	Sage Hallway - 5th Floor	There's an Ex-plane-ation: The Effect of the Length of Wings on How far Airplanes Fly
J-ETSD-001T	Jacob Lavoo	7th	Sage Hallway - 5th Floor	There's an Ex-plane-ation: The Effect of the Length of Wings on How far Airplanes Fly
J-ETSD-002	Tejas Jacob	8th	Sage Hallway - 5th Floor	Improving the Aerodynamic Efficiency of Airplanes Using a Nature-inspired Adaptive Wing
J-MCRO-001	Juno Catlin	8th	Sage Hallway - 4th Floor	Do Acne Cleansers Really Work?
J-MCRO-002	Mya Saunders	8th	Sage Hallway - 4th Floor	The Good Gut: The Effect of Lactobacillus and E. Coli on Pathogenic Bacteria Population Growth
J-MCRO-003	Claire Smith	8th	Sage Hallway - 4th Floor	The Effect of Microorganisms on Removing Nitrates from Wastewater.
J-MCRO-004	Noah Speanburg	8th	Sage Hallway - 4th Floor	The Effect of Ozone Water vs Topical Disinfectant on Bacteria
J-PLNT-001T	Isabel Pelech	7th	Sage Hallway - 5th Floor	Turn the Lights Down Low
J-PLNT-001T	Morgan Colby	7th	Sage Hallway - 5th Floor	Turn the Lights Down Low
J-PLNT-001T	Richard Coon, Jr.	7th	Sage Hallway - 5th Floor	Turn the Lights Down Low
J-PLNT-002	Cameron Boardman	8th	Sage Hallway - 5th Floor	My Plants Be-Leaf In Me
J-PLNT-003	Rogan Kelly	8th	Sage Hallway - 5th Floor	The Effect of Biodegradable Hydrogels on Plants During Farming
J-PLNT-004	Brennen Michel	8th	Sage Hallway - 5th Floor	The Effect of Cover Crops on Soil Erosion

Senior Division Projects (T=Team)

Project #	Name	Grade	Room	Project Title
S-ANIM-001	Django Accardi	12th	Walker 6213	Frequency-Dependent Batesian Mimicry in Northern Water Snakes (<i>Nerodia sipedon</i>) and Eastern Copperheads (<i>Agkistrodon Contortrix</i>) in Sympatric and Allopatric Regions of the Hudson Valley in New York State
S-ANIM-002	Eliza Howenstein	12th	Walker 6213	Effects of Long-term White LED Light Exposure and Sleep Deprivation on <i>Drosophila Melanogaster</i> that Model the Function of a Teenage Brain
S-BEHA-001	Nicole Boyea	12th	Walker 6113	Visible or Invisible Runners? Studying the Effect Reflective Vests Have on Driver Reactions
S-BEHA-002	Anushree Buragohain	12th	Walker 6113	The Effect of Personality Traits on the Academic Success of High School Students
S-BEHA-003	Catherine Cheng	11th	Walker 6113	Late Adolescents' Perceptions of Social Media Platform Toxicity: A Comparative Study of User Opinions on the Harmfulness of Specific Platforms Compared to Others
S-BEHA-004	Marysa Colvin	12th	Walker 6113	Maladaptive Daydreaming and its Effect on High Schoolers' Executive Functioning
S-BEHA-005	Alexandria Conway	12th	Walker 6113	Using Expressive Art in the Form of Mandalas to Reduce Teachers Stress at Taconic Hills CSD, Caryville, NY
S-BEHA-006	Kashaf Jafry	12th	Walker 6113	The Effects of COVID-19 on Medical Students and Resident Physicians
S-BEHA-007	Hailey Lanari	12th	Walker 6113	Mother-Child Relationships and Child Social Development through the Lens of Work-Life Balance and Role Theory
S-BEHA-008	Nirvana Monsur	9th	Walker 6113	Lies and Truth Exist in the Stare
S-BEHA-009	Lucy Ray	12th	Walker 6113	Sensory Stimulation as an Academic Intervention in High School Students
S-BEHA-010	Alex Snedaker	12th	Walker 6113	Social and Parental Involvement and the Impact on Risk of Compulsive Exercise and Body Physique Internalization
S-BMED-001	Neena Bisconti	12th	Walker 3214	The Effect of Vitamin C Supplementation on Cognitive Function in Postmenopausal Women
S-BMED-002	Dayeon Choi	12th	Walker 3214	Exploring Herbs as Potential Inhibitors of Human Papillomavirus (HPV) Entry for Cervical Cancer Prevention
S-BMED-003	Kalaimagal Govindaraj	12th	Walker 3214	Characterizing Motor Impairments in the 15Q/2Q Knock in Model of Spinocerebellar Ataxia-1
S-BMED-004	Ian Jin	11th	Walker 3214	The Impact of Tamoxifen Concentration on Breast Cancer
S-BMED-005	Luke Kotsides	12th	Walker 3214	An Observational Study Investigating the Association Between Regional Socioeconomic Status and Availability of COVID-19 Testing in Upstate New York Counties
S-BMED-006	Ariel Koyfman	12th	Walker 3214	Thyroseq II Predicted Thyroid Cancer Rates in a Community Setting

Senior Division Projects Continued

Project #	Name	Grade	Room	Project Title
S-BMED-007	Jillian Meyers	12th	Walker 3214	Relationship between Dry Eye Disease and Myopia with the Increased Use of Electronic Devices in Adolescents
S-BMED-008	Liliana Panasci	12th	Walker 3214	The impact of Obesity, Physical Activity, and Nativity Status on ADL and IADL
S-BMED-009	Emily Pearson	11th	Walker 3214	Neuroprotective Role of Focused Ultrasound of the Celiac Plexus in a Rat Model of Parkinson's Disease
S-BMED-010	Arath Seckin	12th	Walker 3214	Can We Trust Anesthetics? Supporting the Legitimacy of Neuraxial Injections on Multiple Sclerosis (MS) Patients
S-BMED-011	Ezra Seckin	12th	Walker 3214	Efficacy of Cervical Facet Joint Injections In Cervicogenic Tinnitus Treatment
S-CBIO-001	Tehreem Fatima	12th	Walker 3214	Identification of Key Long Non-Coding RNAs (LncRNAs) Effecting Alternative Splicing and Gene Expression in the Frontal Cortex of Myotonic Dystrophy Type 1 Patients
S-CBIO-002	Hridaanshu Gusain	12th	Walker 3214	Nuclei Segmentation Using Deep Learning and Hyperspectral Imaging for High Accuracy
S-CBIO-003	Edward Li	12th	Walker 3214	Examination of Metastatic Breast Cancer Cells using Differential Gene Expression and Gene Ontology Enrichment Analysis of Dap5 protein
S-CBIO-004	Aaditya Ojha	11th	Walker 3214	Development of a Bioinformatics Pipeline for Serogroup Identification in Neisseria meningitidis
S-CBIO-005	Divyansh Pramanick	11th	Walker 3214	Optogenetic Stimulation of Orco-Gal4; UAS-Chrimson Drosophila melanogaster to Investigate Locomotion Responses
S-CELL-001	Maryam Abdelnour	12th	Walker 6213	The Effects Of Serine/Threonine-Protein Phosphatase PGAM5 (PGAM5) On Decreased Virus Production in Retrovirus HIV
S-CELL-002	Zayd Bhatti	11th	Walker 6213	The Effect Of Exercise Training On Myotonic Dystrophy Type 1 Patients Level Of Gene Expression
S-CELL-003	Honora LaRock	12th	Walker 6213	The Impact of Formin Homology Genes on the Sex Myoblast Pathway in C. elegans
S-CELL-004	Kaitlin Munro	11th	Walker 6213	Known and Proposed Role of Peripheral Myelin Protein 2 in Schwann Cells During Myelination
S-CELL-005	April Ren	11th	Walker 6213	Assess the Effect of Inhibition of DNA Replication Stress Replicators on Human Colon Cancer Cells
S-CELL-006	Carolyn Stum	12th	Walker 6213	The Effect of Inhibiting Nuclear Export on Glial and Fibrotic Scar Formation as Related to Wound Healing During Spinal Cord Injury in Rats
S-CHEM-001	Arin Khare	12th	Walker 6213	The Simulated Sea: A Molecular Dynamics Study of Salt Ion Hydration
S-CHEM-002	Lucia Sushynski	12th	Walker 6213	Iodine Degradation Study
S-CHEM-003	Sarah Nune	12th	Walker 6213	Bio Roll-Up: Maintaining Uniformity and Implementing Rinse Step
S-EAEV-001	Saad Ashar	11th	Walker 3109	Machine Learning Model for Cloud Classification Using NYS Mesonet Images

Senior Division Projects Continued

Project #	Name	Grade	Assigned Room	Project Title
S-EAEV-002	Ella Bagchi	9th	Walker 3109	Do Fertilizer Regulations Reduce Algal Bloom Occurrences?
S-EAEV-003	Jakob Baron	12th	Walker 3109	Effectiveness of Ground Penetrating Radar (GPR) in Locating Fossils and Artifacts in Assorted Sediment Types
S-EAEV-004	Molly Beaugard	12th	Walker 3109	The Effect of Road Salts (MgCl ₂ , NaCl) Concentration on Heart rate and Mortality in Daphnia Magna using Bioassay
S-EAEV-005	Talia Co-Mided	12th	Walker 3109	Drinking Forever Chemicals: Investigation of Per- and Polyfluoroalkyl Substances in Drinking Water in Rockland County
S-EAEV-006	Inara Ilse	12th	Walker 3109	Microplastic Analysis of High-flow and Low-flow Streams Located in Rensselaer County
S-EAEV-007	Maeve McCarthy	12th	Walker 3109	Crustal Thickness and Vp/Vs Ratios in Western Canada through H-k Stacking of P-wave Receiver Functions
S-EAEV-008	Simon Rieffel	11th	Walker 3109	Relative Distribution of Invasive and Native Groundcover Plants in Upstate New York Forests
S-EAEV-009	Paul Shannon	12th	Walker 3109	Rhizofiltration of an induced Microcystis Bloom Using the Common Water Hyacinth (E. crassipes) within a Constructed Wetland Model
S-EAEV-010	Samuel Szerlip	12th	Walker 3109	Saving the World: Effect of pH and Axial Stress on the Hydration of MgO as an Analog for the Mineralization Reaction of MgO
S-EAEV-011	Simran Utturkar	11th	Walker 3109	An Association between Urban Electric Vehicle Adoption and Childhood Asthma Hazard Rates
S-EAEV-012	Sophia Xin	12th	Walker 3109	The Effect of Suburbanization on Black-capped Chickadees in the Albany Pine Bush, NY
S-EGSD-001	Hyunseo Kim	12th	Walker 6213	Effectiveness and Assessment of Aerogel and Light Variability on Thermal Collection
S-EGSD-002	Kush Malwatkar	11th	Walker 6213	Harvesting Atmospheric Electricity
S-ENBM-001	Tarun Jacob	12th	Walker 3214	TonoSense: A Novel Device for Intraocular Pressure Measurement
S-ETSD-001	Thomas Bundy	11th	Walker 3222	Proof of Concept: Analyzing the Structure and Durability of an Autonomy-Supportive Skiing Aid.
S-ETSD-002	Alexander Chyla	12th	Walker 3222	From Whales to Wings: How Humpback Whale Tubercles Inspired Aerodynamic Design
S-ETSD-003	Calista Hardesty	12th	Walker 3222	Using a Mindwave Neurosky to Assess Differences in the Brainwaves that Control a Mini Racing Drone
S-ETSD-004	Pavithra Jayakumar	11th	Walker 3214	The Application of Graphene Oxide and Methyltrimethoxysilane Hydrophobic Aerogels on the Adsorption of Oil Spills
S-ETSD-005	Lilly Mertzlufft	12th	Walker 3222	An Investigation of Jet Assisted Surface Mounted Actuators in Laminar and Turbulent Boundary Layers

Senior Division Projects Continued

Project #	Name	Grade	Room	Project Title
S-MCRO-001	Shane Baker	12th	Walker 6213	The Effect of E-cigarette Vapor Condensate (ECVC) on Population Growth of <i>Tetrahymena thermophila</i>
S-MCRO-002	Sreeram Vudayagiri	12th	Walker 6213	Effect of TUBB2A and TUBB3 Knockdown on Paclitaxel Sensitivity of Ovarian Cancer Cells
S-PHYS-001	Adeline Delessio	12th	Walker 3109	Irradiating Amino Acids in the Presence of Salt to Investigate Amino Acid Lifetimes and Degradation Rates on the Surface of Europa
S-PHYS-002	Jocelyn Elphick	11th	Walker 3109	Are Galaxy Tendrils Consistent with the Standard Model of Cosmology?
S-PHYS-003	Sanvi Gawad	12th	Walker 3109	Dynamical Measurements of Filament Masses: The PPS Filament
S-PHYS-004	Shreya Girish	12th	Walker 3109	Analyzing the Accuracy Between the Pinpoint and Platform Stance in Junior Female Tennis Serves
S-PHYS-005	Jack Stuhlman	12th	Walker 3109	N-body Simulation of a Binary Dwarf galaxy infall and applications to the Sagittarius tidal stream
S-ROBO-001T	Arthur Leung	12th	Walker 3222	An Artificially Intelligent Alternative for Visually Impaired Individuals
S-ROBO-001T	Jad Richani	12th	Walker 3222	An Artificially Intelligent Alternative for Visually Impaired Individuals
S-ROBO-002	Julia Landres	12th	Walker 3222	Background Replacement in Sign Language Recognition: Creation and Evaluation of Augmented Dataset
S-ROBO-003	Akshay Muppidi	10th	Walker 3222	Synthetic Robotic Manipulation Data Generation using Large Language Models to Train Real-World Language-Conditioned Robotic Manipulation Agents
S-SOFT-001T	James Lian	12th	Walker 3222	LegiBERT: Applying Abstractive Text Summarization to Legislative Texts
S-SOFT-001T	Jason Lian	9th	Walker 3222	LegiBERT: Applying Abstractive Text Summarization to Legislative Texts
S-SOFT-002	Ethan Reyes	11th	Walker 3222	An Algorithm for Edge Generation in Graphs of Real World Vertex Fields for Travel with Momentum Constraints
S-TMED-001	Allison Wu	11th	Walker 3214	VoiceAD: A Multilingual Speech Based Classifier for Early Detection of Alzheimer's Disease

Teacher Sponsors and Participating Schools

First Name	Last name	School Name
Andrew	Licari	Academy of Holy Names
Jennifer Georgios	Gonyea Athanassiadis	Bethlehem Central High School
Regina	Reals	Burnt Hills - Ballston Lake CSD
Julie Laszio	Matthews Bardos	Emma Willard School
Nicole	Dixson	Greenwich Central School District
Christie	Neuls	Guilderland High School
Thomas	Vartuli	Hudson Falls Central School District
Jessica Amanda	Puopolo Bates	Monroe-Woodbury High School
Laura	Favata	Niskayuna High School
Kirsten Katherine	Kleinman Jacobson	Nyack High School
Lawrence	Sicheri	Rondout Valley High School
Peter Rebecca	Robinson Goldfischer	Saratoga Springs High School
Nathaniel	Covert	Shaker High School
Eric	Davenport	Shenendehowa High School
Linda	Hopkins	Taconic Hills High School
Macy	Anetzberger	The Albany Academies

Awards

Special Awards

The purpose of these awards is to give recognition to specific areas of science research.

Regional Awards

These special awards were developed by our Regional Fair and are not offered at the International finals. Please note, some of the awards are for both divisions and others are for only one of the divisions.

*Monetary awards to teams are shared. Students must download a W-9 Form and Award Winner Letter Form from the GCRSEF website under **Forms** and submit them to Fair Director, Joan Wagner in order to receive the monetary award. Forms can be sent by email to gcrsef@gmail.com or to Joan Wagner, 7 Bluebird Court, Saratoga Springs, NY 12866.*

American Society for Microbiology, Eastern New York Branch

This award is given to one project that involves research related to microbiology.

Senior Division Award: Certificate plus \$100.

Junior Division Award: Certificate plus \$50.

Brown League Sports Science Award

The award is presented to the project that uses a scientific approach to further an understanding or improve the performance of a sports-related phenomena. It is in memory of John Stasenکو who first initiated this award.

Senior Division Award: \$50 Amazon Card; no teams.

Cullen Blake and Deena Mousa Excellence in Science Award

This award is given to a student who demonstrates both a love of science and the skill for doing science. This is a junior division award only.

Junior Division Award: Certificate plus \$100.

Curia Global: Passion for Scientific Endeavors Award

This award goes to individual(s) who demonstrate a passion for scientific discovery and excellence as exemplified in the area(s) of chemistry, materials, environmental or medicinal applications.

Senior Division Award: Certificate and \$150.

Junior Division Award: Certificate and \$100.

Dudley Observatory Award

The Dudley Observatory offers an award for a project in astronomy or space science. It is given in memory of past president, Sam Wait.

Senior Division Award: Certificate plus \$100.

No teams.

Junior Division Award: Certificate plus \$50.

No teams.

GCRSEF Excellence in Computer Science Award

This award is for a project that demonstrates innovative use of computer programs to address an important problem facing society. This award may be given to an individual or a team.

Senior Division Award: Certificate and \$200.

Linda Austin DNA Science and Technology Award

This award is offered for research in DNA science and technology. It is in memory of Linda Austin who brought DNA Science and Technology to many, many schools in the Capital Region.

Senior Division Award: Certificate plus \$100.

Momentive Performance Materials

This award is for a project that demonstrates the innovative use of synthetic chemicals to improve the environment and/or quality of life.

Senior Division Award: Certificate plus \$100.

Junior Division Award: Certificate plus \$50.

Regional Awards (continued)

National Association of Biology Teachers

This award is given an outstanding project in the life sciences.

Senior Division Award: Certificate and \$75.

Junior Division Award: Certificate and \$50.

National Grid Award for Energy and the Environment

The award is presented to individual(s) with a research project/exhibit that includes consideration and/or achievement in energy reduction, sustainability or reduced impact to the environment.

Senior Division Award: Certificate plus \$100.

Junior Division Award: Certificate plus \$50.

Price Chopper's Golub Foundation Award in Memory of Jane Golub

This award is for a project in nutrition that promotes good health.

Senior Division Award: Certificate plus \$100.

Junior Division Award: Certificate plus \$50.

Regeneron George Yancopoulos Award

Awarded to the project that demonstrates the most creativity in improving or identifying health issues in an individual.

Senior Division Award: Certificate plus \$750.

Junior Division Award: Certificate plus \$250.

RPI Scholarship

This award is given to outstanding project for grades 9-11. The Planning committee for the Fair reserves the right whether or not to offer this award. (No teams).

Senior Division Award: \$50,000 (\$12,500 per academic year).

Scientific American Magazine Award

This award is a one year subscription to Scientific American. It is given to all senior division grand prize awardees.

SI Group Smart Chemistry Award

This award will be presented to a project that demonstrates ingenuity in utilizing chemistry to promote environmental sustainability.

Senior Division Award: Certificate plus an Apple iPad mini (no teams).

Junior Division Award: Certificate plus \$100.

STANYS: Eleanor Miller Reed Science Research Award

This award is given to a project that "captures the spirit of science research."

Senior Division Award: Certificate and \$100.

Junior Division Award: Certificate and \$50.

UAlbany CNSE Design for Society Award

This award is to a project that demonstrates a creative use of engineering or computer science to address a problem identified in cooperation with community or industry partners.

Senior Division Award: Certificate and \$100 gift card

UAlbany CNSE Scholarship

This UAlbany CNSE scholarship, which provides \$2000 in annual support for non-tuition academic expenses, will support a student who: 1) participated in the Greater Capital Region Science and Engineering Fair; and 2) selects a major housed within the College of Nanotechnology, Science, and Engineering (CNSE).

Walter Eppenstein Physics/Astronomy Award

This award is for an outstanding physics or astronomy project. It is in memory of Professor Walter Eppenstein, who brought this science fair to RPI.

Senior Division Award: Certificate plus \$75.

American Psychological Association This award recognizes outstanding research in psychology under the category of behavioral and social sciences or any category related to psychology (e.g., animal sciences, biochemistry, computer science, environmental science, mathematical science, medicine and health).

Senior Division Award: Certificate.

Association for Women Geoscientists

This award is offered to female students. Teams with at least one female are also eligible. These projects should exemplify high standards of innovativeness and scientific excellence in the geosciences. Special consideration will be given to projects that increase the public awareness of geosciences, illustrate the interdisciplinary nature of the geosciences or promote the sensitivity to Earth as a global system.

Junior Division Award: Certificate.

Department of Defense (DoD) STEM Leadership Prize

This prize acknowledges the middle school student or team that demonstrates excellence in STEM, as well as the problem-solving skills and determination to overcome challenges throughout the research project.

Junior Division Award: Certificate and \$100.

Lemelson Early Inventor Prize

This award is offered to an individual or team who: (1) Demonstrates problem-solving by identifying a critical problem; (2) Applies empathy and STEM knowledge to find a practical solution; (3) Displays entrepreneurial thinking by developing a tangible invention; (4) Ideally exemplifies environmentally-responsible thinking in their research and creation of the project.

Junior Division Award: Certificate plus \$100, to be shared if a team.

NASA Earth System Science Award

This is for a project exhibiting a clear and focused purpose on Earth System Science that is testable using the science process. Founded in 1958 by President Dwight D. Eisenhower, NASA's mission is to pioneer the future in space exploration, scientific discovery and aeronautics research, answering basic questions like: What's out there in space? How do we get there? What will we find?

Senior Division Award: Certificate.

National Oceanic and Atmospheric Administration (NOAA) "Taking the Pulse of the Planet" Award

This award goes to research that emphasizes NOAA's mission of science, service and stewardship in climate, weather, ocean and coastal sciences.

Senior Division Award: Certificate, Letter and Medallion.

Regeneron Biomedical Science Award

This award is offered to a project in one of the following categories: Biochemistry, Biomedical & Molecular Biology, Cellular and Molecular Biology, Computational Biology & Bioinformatics, Microbiology and Translational Medical Science.

The research has all or some of these attributes: (1) Lead with Science: Demonstrate command of and passion for science, (2) Take on Big Ideas: Exemplify traits of a driven thinker, (3) Make it Happen: Demonstrate flexibility and a continuous learner mindset, (4) Be Great Together: Embodies traits of an inspiring leader, (5) Do What's Right: Embody a drive to use science for good.

Senior Division Award: Certificate plus \$500.

Regional Ricoh Sustainable Development Award

This award recognizes projects that demonstrate outstanding efforts in addressing issues of environmental responsibility and sustainable development.

Senior Division Award: Certificate.

Scientific American Subscription

Scientific American recognizes outstanding student research. This award goes to the six grand prize awardees.

Senior Division Award: Certificate and one-year subscription to Scientific American.

Society for *In Vitro* Biology

To be awarded to the most outstanding 11th grade student exhibiting in the areas of plant or animal *in vitro* biology or tissue. If there are no 11th graders available for award, it can be offered in other senior division grades.

Senior Division Award: Certificate.

Stockholm Junior Water Prize (SJWP)

This is for the best projects related to water quality, water resource management, water protection, water treatment or wastewater treatment. Up to three senior division awards may be given.

Senior Division Award: Certificate plus invitation to compete in the State Competition. Up to three awardees may register to compete in the State competition by April 15th. Ten finalists at the Regeneron International Fair will receive an all expense trip to Stockholm, Sweden where they will represent the United States to compete in the International Stockholm Junior Water Prize competition. Each winner must complete the online form to compete at the higher level.

USAID From the American People

This award is given to a humanitarian project that holds the potential to improve lives around the world. It addresses health and environmental problems facing the world such as clean water, sustainable food, energy production, climate change and health.

Senior Division Award: Letter and Certificate.

U.S. Air Force

This award is given in any area of science and engineering (two junior and two senior awards). No teams.

Senior Division Award: Certificate and gift.

Junior Division Award: Certificate and gift.

U.S. Metric Association

This is for a student whose project involves a significant amount of quantitative measurement and which best uses the SI metric system for those measurements.

Senior Division Award: Certificate.

Junior Division Award: Certificate.

U.S. Navy Office of Research

Five awards are available. Two junior and three senior awards (no teams).

Senior Division Award: Certificate, medal and monetary gift.

Junior Division Award: Certificate and medal.

Yale Science and Engineering Association Inc.

This award is given to the most outstanding 11th grade student exhibiting in the areas of Computer Science, Engineering, Physics or Chemistry (team or individual).

Senior Division Award: Certificate and Medallion.

A preliminary certificate will be mailed to recipient. A pewter medallion will be sent to the winner after the Fair Director mails out the winner's form.

Grand Prizes

Senior Division

1st Place

GCRSEF Certificate, ISEF Finalist certificate, gold medal, invitation to the **Regeneron ISEF**, \$1000 from RPI School of Science; teams split the prize money. Year subscription to **Scientific American**.

2nd Place

GCRSEF Certificate, ISEF Finalist certificate, silver medal, invitation to **Regeneron ISEF**, \$750 from RPI School of Science; teams split the prize money. Year subscription to **Scientific American**.

3rd Place

GCRSEF Certificate, ISEF Finalist certificate, bronze medal, invitation to **Regeneron ISEF**, \$500 from RPI School of Science; teams split the prize money. Year subscription to **Scientific American**.

1st Honorable Mention:

Certificate, ribbon, invitation to **STANYS State Science Congress**, \$250,, teams split the prize money. Year subscription to **Scientific American**.

2nd Honorable Mention

Certificate, ribbon, invitation to **STANYS State Science Congress**, \$150; teams split the prize money. Year subscription to **Scientific American**.

3rd Honorable Mention

Certificate, ribbon, invitation to **STANYS State Science Congress**, \$100.00; teams split the prize money. Year subscription to **Scientific American**.

Junior Division

1st place

GCRSEF Certificate, Thermo Fisher Scientific JIC Certificate, gold medal, \$750 from RPI School of Science; teams split the prize money, invitation to **STANYS State Science Congress and Invitation to Thermo Fisher Scientific Junior Innovators Challenge (JIC)**.

2nd Place

GCRSEF Certificate, Thermo Fisher Scientific JIC Certificate, silver medal, \$500 from RPI School of Science; teams split the prize money, invitation to **STANYS State Science Congress and Invitation to Thermo Fisher Scientific Junior Innovators Challenge (JIC)**.

3rd Place

GCRSEF Certificate, Thermo Fisher Scientific JIC Certificate, bronze medal, \$250 from RPI School of Science; teams split the prize money, invitation to **STANYS State Science Congress and Invitation to Thermo Fisher Scientific Junior Innovators Challenge (JIC)**.

1st Honorable Mention

GCRSEF Certificate, Thermo Fisher Scientific JIC Certificate, ribbon, \$150; teams split the prize money. Invitation to **Thermo Fisher Scientific Junior Innovators Challenge (JIC)**.

2nd Honorable Mention

GCRSEF Certificate, ribbon, \$100; teams split the prize money.

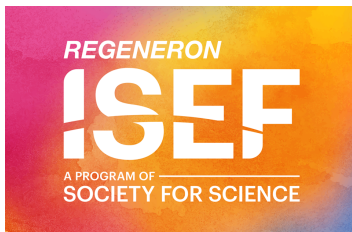
3rd Honorable Mention

GCRSEF Certificate, ribbon, \$75; teams split the prize money.

Our regional Regeneron ISEF may send up to three projects to the International Finals. The Planning Committee reserves the right to decide how many projects can participate in the International Finals. ISEF takes place Los Angeles, California, May 12-17, 2024.

The STANYS State Science Congress is hosted by The Milton J. Rubenstein Museum of Science & Technology (MOST) and takes place in Syracuse, NY, June 9, 2024.

Thermo Fisher Scientific Junior Innovators (JIC) online information is due June 14, 2024 by 8:00 PM EDT. Semi-finalists will be announced on September 6, 2024. Finalists will be announced on September 20, 2024. **Thermo Fisher Scientific (JIC)** national finals will be held in Washington, DC, October, 2024.



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National Grid

Brache (\$1000-\$2000)

Curia Global
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SI Group
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