



Connecticut Science & Engineering Fair

Quinnipiac University

March 4 - 16, 2024

These judging results are unaudited by the fair's Database Committee. The CSEF reserves the right to correct the listings.

Final Judging Results

Award Legend

Plaque Winners = 1, 2, ...
 Medalists = m
 Winners = w

Urban School Challenge Awards

[SchTown] [School] [Teacher]
 [Proj#] [FCat] [Project Title]

Middle School

Windsor Academy of Aerospace and Engineering Michelle Bellinger

4011 PT Using Piezoelectric Sensors to Harvest Energy from Automobile Tires and the Road Surface

Award 1 **Student(s)** Palaniappan Manikandan **Grade 8** **Town** Ellington
 Duke Clotney **Grade 8** **Town** Hartford

- * The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- 1st Place Middle School - \$300 and Trophy, Medallion
- * EnergizeCT Alternative & Renewable Energy Awards --- 3rd Place Middle School - \$100 Cash and Trophy
- * EnergizeCT Future Sustainability Awards --- 1st Place Middle School - \$300 Cash and Trophy
- * Connecticut Academy of Science and Engineering Middle School Urban School Challenge Award --- Urban School Challenge 1st MS- \$250 Cash Award, Invite to attend CASE's Annual Meeting
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF
- * Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners
- * IEEE, Connecticut Section --- \$100 Honorable Mention
- * The Community Foundation for Greater New Haven's Milton Fisher Awards for Innovation and Creativity --- For Excellence in Creativity and Innovation by a Middle School student, \$100 cash
- * Urban School Challenge 1st Place Middle School Awards --- USC Highest Placing 8th grader - GENIUS Olympiad Competition with stipend (421)
- * Jon Chapis Memorial Award --- Jon Chapis Spirit of Innovation Award - MS \$100
- * GENIUS Olympiad --- GENIUS Olympiad Competition for Highest Placing USC 8th grade Project

Danbury Westside Middle School Academy Nancy Barlow

4012 PT Building a Versatile Air Sensor That Can Detect PM10 & PM2.5 in the Air

Award 2 **Student(s)** Sarvesh Ram Sankarnarayan **Grade 8** **Town** Danbury
 Gabrielle Anderson **Grade 8** **Town** Danbury
 Eleftherios Amperidis **Grade 8** **Town** Danbury, Ct

- * The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- 2nd Place Middle School - \$200 and Trophy, Medallion
- * Environmental Sciences Awards with Connecticut Association of Conservation and Inland Wetlands Commissions --- 3rd Place MS- \$100, Trophy
- * ISA - International Society for Automation - Ct. Valley Section --- 2nd - \$75 award
- * The Community Foundation for Greater New Haven Ecology, Environmental, and Alternative Energy Research Prize --- Urban Public School Environmental / Energy Award - \$250
- * Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2024 Invention Convention, June 8

Danbury Westside Middle School Academy Nancy Barlow

2518 L8 The Effect of Different Substrates on the Growth of Mycelium

Award 3 **Student(s)** Milana Lenz **Grade 8** **Town** Danbury

- * The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- 3rd Place Middle School - \$100 and Trophy, Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion



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Danbury Westside Middle School Academy Nancy Barlow

1008 LT Air Purifier that Effectively Removes Air Toxins - PM 2.5 and Formaldehyde

Award 4 Student(s) **Arlis Arias-Paulino** Grade 8 Town Danbury
Sivayazhini Sivasundar Grade 8 Town Danbury
Kuhutan Roy Grade 8 Town Danbury

- * Life Science Awards with support from Boehringer Ingelheim --- 2nd Place- Life Sciences MS Team- \$100 each & trophy
- * The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- 4th Place Middle School - Trophy, Medallion
- * Alexion Biotechnology Awards --- 4th Place Biotechnology 8th grade- trophy

Waterbury ACES at Chase Kelly Horan

5005 P7 What Design of Mesh Water Filtration Device Most Effectively Removes Microplastics?

Award 5 Student(s) **Jacob Godfrey** Grade 7 Town Waterbury

- * The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- 5th Place Middle School - Trophy, Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion
- * U.S. Agency for International Development (USAID) --- Certificate and \$25 gift card given by CSEF
- * Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners
- * National Center for Inquiry Learning --- Daniel & Maggie Award for Imagination - MS \$100
- * Aquarion Water Company --- 1st. \$150.00 Cash - Grade 7-8 For Excellence in Water Quality or Environmental Management
- * Urban School Challenge 1st Place Middle School Awards --- USC Highest Placing 7th grader- Project Oceanology's Ocean Camp - \$900

Bridgeport Geraldine Johnson School Kelly Mulligan

1009 LT Can you detect Artificial Intelligent generated Text from Human Generated Text?

Award m Student(s) **Angelica Philogene** Grade 8 Town bridgeport
Kee'maja Lilley Grade 8 Town Bridgeport

- * Pfizer Computational Biology and Bioinformatics Awards --- 3rd Place Middle School - \$100, Trophy
- * The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- Middle School Finalist - Medallion
- * Infosys Foundation Computer Science Awards --- Middle School Finalist - Medallion

Bridgeport John Winthrop Srilakshmi Kongani

4003 PT The Pinwheel Problem

Award m Student(s) **Fernando Marin** Grade 8 Town Bridgeport, CT
Pandora Nguyen Grade 8 Town Bridgeport, CT

- * The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- Middle School Finalist - Medallion
- * EnergizeCT Alternative & Renewable Energy Awards --- Middle School Finalist - Medallion



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Danbury	Westside Middle School Academy	Nancy Barlow	4007	PT	The Effectiveness of Different Distillation Methods for Desalination
Award	m	Student(s)	Siddanth Ramakrishnan	Grade 7	Town Danbury
			Patrick Madden	Grade 7	Town Danbury

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Jr Team - CSF Medallion
- * The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- Middle School Finalist - Medallion
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF
- * Freeman Family Excellence in Chemistry Awards --- \$100 For Excellence in Chemistry or Chemical Engineering - Middle School

Danbury	Westside Middle School Academy	Nancy Barlow	1004	LT	How Does Temperature Affect How Bright Bioluminescent Plankton Glow?
Award	m	Student(s)	Montana Urban	Grade 7	Town Danbury
			Sebastian Madera-Guridy	Grade 7	Town Danbury
			Erin George	Grade 7	Town Danbury

- * The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- Middle School Finalist - Medallion

Danbury	Westside Middle School Academy	Nancy Barlow	4023	PT	How do Different Strength Magnets Affect a Phone's Charging Speed
Award	m	Student(s)	Kylie Wilson	Grade 8	Town Danbury
			Caleb Lopes	Grade 8	Town Danbury
			Carmelo McCollough	Grade 8	Town Danbury

- * The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- Middle School Finalist - Medallion
- * Stanley Black & Decker Applied Technology Awards --- Middle School Finalist - Medallion

High School

Stamford	Academy of Information Technology and	Joshua Bogard	3035	LS	A Novel Machine Learning Model for Estrous Cycle Classification in Mice
Award	1	Student(s)	Saachi Goyal	Grade 11	Town Stamford

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion
- * Pfizer Computational Biology and Bioinformatics Awards --- 2nd Place High School - \$300, Plaque
- * The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- 1st Place High School - \$500 and Plaque, Medallion
- * Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion
- * H. Joseph Gerber Award of Excellence presented by the Connecticut Academy of Science and Engineering --- \$500 to 1st HS Urban School Challenge Science Department for Equipment/Supplies



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Windsor Academy of Aerospace and Engineering Michelle Bellinger
 [3004] [LS] Therapeutic Potential of Antibody Drug Conjugates Targeting The Expression of Trophoblast Cell-Surface Antigen 2 (TROP-2) On High Grade Serous Epithelial Ovarian Carcinoma

Award [2] **Student(s)** Ana-Lois Davis **Grade** 12 **Town** Broad Brook

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion
- * The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- 2nd Place High School - \$300 and Plaque, Medallion
- * Alexion Biotechnology Awards --- 3rd Place Biotechnology Senior High - \$200 & plaque
- * The Community Foundation for Greater New Haven's Milton Fisher Awards for Innovation and Creativity --- For Excellence in Creativity and Innovation by a High School student, \$100 cash

Manchester Manchester High School Wendy Turek-Hernandez
 [3138] [LS] Determining the incidence of Beech Leaf Disease symptom severity based on overwintering nematode abundance in Fagus grandifolia buds

Award [3] **Student(s)** Dina Watson **Grade** 12 **Town** Manchester

- * The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- 3rd Place High School - \$ 200 and Plaque, Medallion
- * Alumni Botany Awards --- Alumni High School Botany Award- \$100 Cash

New Haven Engineering and Science University Magnet School Roger Rushworth
 [3050] [LS] Implementation of a Computationally Efficient Machine-Learning-Based System to Diagnose Cervical Cancer via Numerical Feature Extraction and Multivariate Regression

Award [4] **Student(s)** Ethan Joseph **Grade** 9 **Town** West Haven

- * The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- 4th Place High School - Plaque, Medallion
- * Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion

New Haven Engineering and Science University Magnet School Alyssa Anderson
 [6052] [PS] Synthesis of Porous Polymer Sponge Matrix using Modified Sodium Alginate Clay Compound for Adsorptive Removal of Microplastics and Oil from Contaminated Water

Award [5] **Student(s)** Snigtha Mohanraj **Grade** 11 **Town** Ansonia

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- 5th Place High School - Plaque, Medallion
- * Pepsico Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * U.S. Metric Association --- Certificate & \$25 gift card given by CSEF
- * Stockholm Junior Water Prize --- Certificate, \$25 gift card by CSEF, possible advance to further competition
- * The Community Foundation for Greater New Haven Ecology, Environmental, and Alternative Energy Research Prize --- Urban Public School Environmental / Energy Award - \$250



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Bridgeport Bridgeport Regional Aquaculture Center Kirk Shadle
 3015 LS Non-Thermal Induction of Heat Shock Protein 90 to Mitigate Early Oncogenesis With Preserved HSR
Award m **Student(s)** Chloe Atkins **Grade** 12 **Town** Stratford

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion
- * Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion
- * The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- Senior High Finalist - Medallion
- * University of Connecticut - Early College Experience --- UCONN Early College Experience Program: Life Sciences - Co-Op \$100 Gift Certificate

Bridgeport Bridgeport Regional Aquaculture Center Kirk Shadle
 6030 PS Using Sodium Alginate Derived Porous Carbon Material to Increase Capacitance of a Cellulose Matrix
Award m **Student(s)** Isabella E Silva **Grade** 12 **Town** Bridgeport

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- Senior High Finalist - Medallion

Bridgeport Bridgeport Regional Aquaculture Center Kirk Shadle
 3077 LS Utilizing Fucus distichus alginates to develop an enhanced aerosol treatment for Cystic Fibrosis
Award m **Student(s)** Mia Nierenberg **Grade** 12 **Town** Stratford

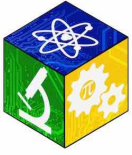
- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion
- * The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- Senior High Finalist - Medallion
- * J.A. Augustine and H. Glista Awards --- \$100 for excellence in Life Sciences

New Haven Engineering and Science University Magnet School Roger Rushworth
 6036 PS Evaluating Hyperparameter Tuned Machine Learning Classifiers for Pancreatic Cancer Detection via Urinary Biomarkers
Award m **Student(s)** Nivrith Ananth Iyer **Grade** 10 **Town** West Haven

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- Senior High Finalist - Medallion
- * Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion

Windsor Academy of Aerospace and Engineering Michelle Bellinger
 6515 PST The Effect of Surface Texture on the Efficiency of a Spoiler (airfoil) in Formula 1 Race Cars.
Award m **Student(s)** Willard Davis **Grade** 10 **Town** Broad Brook
 Peter Davis **Grade** 10 **Town** Broad Brook

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Senior Team - CSF Medallion
- * The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- Senior High Finalist - Medallion



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Windsor Academy of Aerospace and Engineering Michelle Bellinger
 3054 LS Optimizing Laterite Soil Microbial Fuel Cells for Community-Centric Electricity Generation in Tropical Underdeveloped Regions

Award m **Student(s)** Namyanzi Edwards **Grade** 11 **Town** New Britain

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion
- * The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- Senior High Finalist - Medallion
- * EnergizeCT Alternative & Renewable Energy Awards --- High School Finalist - Medallion
- * EnergizeCT Future Sustainability Awards --- 2nd Place High School - \$300 Cash and Plaque
- * Society for In Vitro Biology --- Certificate and \$25 gift card given by CSEF
- * IEEE, Connecticut Section --- \$250 Honors Award -Senior
- * GENIUS Olympiad --- GENIUS Olympiad Competition for HS Environmental, Energy, Ecology, or Biodiversity Project
- * The Community Foundation for Greater New Haven Ecology, Environmental, and Alternative Energy Research Prize --- Urban Public School Environmental / Energy Award - \$250
- * University of Connecticut Academic Excellence Scholarship --- Academic Excellence Scholarship - (amount undefined) to a junior)