



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

Regular Fair Awards - Finalists

Sorted by:
 - Fair Category
 - Finalist standing in regular fair (1st, 2nd, etc)
 - Project number

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

Life Sciences - High School Individual

Greenwich Greenwich High School Andrew Bramante

3055 Development and In vitro Verification of a Polymersome for Blood-Brain Barrier Transport Through a Novel Machine Learning Model

Student(s) Ashley Malkin **Grade** 11 **Town** Greenwich

- * Life Science Awards with support from Boehringer Ingelheim --- 1st Place- Life Sciences Senior High- \$500 & Plaque
- * Pfizer Computational Biology and Bioinformatics Awards --- Senior High Finalist - Medallion
- * H. Joseph Gerber Award of Excellence presented by the Connecticut Academy of Science and Engineering --- Life Sciences Senior 1st HS- \$1,000, Solid Silver Medal of Excellence, Invite to CASE Annual Mtg
- * Alexion Biotechnology Awards --- 4th Place Biotechnology Senior High - plaque

Greenwich Greenwich High School Andrew Bramante

3071 Fabrication of a Europium-based Magnetic Nanosensor for the Detection of D-Serine in Early-onset Alzheimers

Student(s) Ava Jackson **Grade** 11 **Town** Old Greenwich

- * Life Science Awards with support from Boehringer Ingelheim --- 2nd Place- Life Sciences Senior High- \$300 & Plaque
- * Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion
- * U.S. Metric Association --- Certificate & \$25 gift card given by CSEF
- * Connecticut Science Supervisors Association --- \$125 for a high school project

Wilton Wilton High School Matthew Hoyt

3059 A Novel AI-Driven Approach for Tracking and Managing Invasive Plant Species

Student(s) Shriya Natarajan **Grade** 10 **Town** Wilton

- * Life Science Awards with support from Boehringer Ingelheim --- 3rd Place- Life Sciences Senior High- \$200 & Plaque
- * Pfizer Computational Biology and Bioinformatics Awards --- Senior High Finalist - Medallion
- * Environmental Sciences Awards with Connecticut Association of Conservation and Inland Wetlands Commissions --- HS Finalist - CSF Medallion
- * Banning Family Life Science Award --- For excellence in invasive species research, \$100 cash

Woodbridge Amity Regional High School Catherine Piscitelli

3040 Optimizing Bone Regeneration: A Novel Atsttrin-Releasing Injectable Hydrogel for Enhanced Osteogenesis in Critical-Sized Bone Defects

Student(s) Haseeb Chaudhry **Grade** 12 **Town** Orange

- * Life Science Awards with support from Boehringer Ingelheim --- 4th Place- Life Sciences Senior High- Plaque

Redding CT STEM Fair Joyce Reed

3052 Determining the Ability of Different Mosses and Plants to Remove Algae Causing Phosphates and Nitrates From Water

Student(s) Emma Cannon **Grade** 11 **Town** New Canaan

- * Life Science Awards with support from Boehringer Ingelheim --- 5th Place- Life Sciences Senior High- Plaque
- * Association for Women Geoscientists --- Certificate & \$25 gift card given by CSEF
- * NYUC Pony Club Equine or Animal Science Award --- \$100 Cash Award or excellence in equine studies

Suffield Suffield Academy Michael Zappala

3002 Dental Nutrients' Delivery Through the Intraoral Cavity with a Toothpaste Using Penetration Enhancers

Student(s) MJ Choi **Grade** 10 **Town** Brookline

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion

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

Windsor	Academy of Aerospace and Engineering	Michelle Bellinger
3004	Therapeutic Potential of Antibody Drug Conjugates Targeting The Expression of Trophoblast Cell-Surface Antigen 2 (TROP-2) On High Grade Serous Epithelial Ovarian Carcinoma	
Student(s)	Ana-Lois Davis	Grade 12 Town Broad Brook
<ul style="list-style-type: none"> * 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 		
Wallingford	Choate Rosemary Hall	Chenglin Miao
3006	Spatial Learning and Memory: Finding and Investigating Place Cells in the Hippocampus	
Student(s)	Yumeng Wang	Grade 10 Town Wallingford
<ul style="list-style-type: none"> * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion 		
Greenwich	Greenwich High School	Andrew Bramante
3009	Rapid Detection of Stress Biomarker Cortisol via a Molecularly Imprinted Polypyrrole Sensor	
Student(s)	Ryan Wadhwa	Grade 10 Town Riverside
<ul style="list-style-type: none"> * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion * Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion 		
Westport	Greens Farms Academy	Matthew Freeman
3013	Role of Protein Expression in Diatom Chain Formation	
Student(s)	Charlotte Wagner	Grade 12 Town Southport
<ul style="list-style-type: none"> * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion 		
Bridgeport	Bridgeport Regional Aquaculture Center	Kirk Shadle
3015	Non-Thermal Induction of Heat Shock Protein 90 to Mitigate Early Oncogenesis With Preserved HSR	
Student(s)	Chloe Atkins	Grade 12 Town Stratford
<ul style="list-style-type: none"> * 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 		
Hamden	Hamden Hall Country Day School	Frank Gasparro
3017	Effect of Hydroxyapatite Encapsulation on the Transdermal Diffusion and Photodegradation of Avobenzone and Octinoxate to Enhance Sunscreen Safety	
Student(s)	Sophia Vash	Grade 10 Town Fairfield CT
<ul style="list-style-type: none"> * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion * Freeman Family Excellence in Chemistry Awards --- \$200 For Excellence in Chemistry or Chemical Engineering - High School 		
Windsor	The Loomis Chaffee School	Koby-Mensah Osei
3018	Addressing Data Imbalance in Plant Disease Recognition through Contrastive Learning	
Student(s)	Bryan Chung	Grade 11 Town Middlebury
<ul style="list-style-type: none"> * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion 		

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

Greenwich Greenwich High School Andrew Bramante

3020 Oral Delivery of Anticoagulant Dabigatran via a Mg-Micromotor Encapsulant Within a Gastric-Resistant Tablet for Ischemic Stroke Treatment

Student(s) **Lula Wang** **Grade 9** **Town** Old Greenwich

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion
- * Alexion Biotechnology Awards --- 1st Place Biotechnology Senior High - \$500 & plaque
- * Regeneron Biomedical Science Award --- Certificate & \$375.00 cash

Greenwich Greenwich Country Day School Nathan Haag

3024 Effects of Temperature on the Growth Rate, Survival Rate, and Breeding Rate of Multiple Generations of Neocaradina davidi, Cherry Shrimp

Student(s) **Michael Capek** **Grade 12** **Town** Rye

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion

Bridgeport Bridgeport Regional Aquaculture Center Kirk Shadle

3027 Using an Experimental Algorithm to Detect Stress in Homarus americanus in Aquaculture

Student(s) **Eden Cunningham** **Grade 12** **Town** Southport

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion
- * Petit Family Foundation Women in Science & Engineering Awards --- 3rd Place- High School- \$200 / plaque

Stamford Academy of Information Technology and Joshua Bogard

3035 A Novel Machine Learning Model for Estrous Cycle Classification in Mice

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

Stamford King School Victoria Schulman

3044 Gender-Related Differences in a Murine PCSK9 and HFD Model of Atherosclerosis

Student(s) **Layla Shah** **Grade 12** **Town** Wilton

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion

Windsor The Loomis Chaffee School Koby Osei-Mensah

3051 Influence and implications of different strains and growth media on the chemical properties, water absorption, and morphology of mycelia bio-scaffolds

Student(s) **Eli Krasnoff** **Grade 11** **Town** Mill Valley

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion

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

Windsor Academy of Aerospace and Engineering Michelle Bellinger

3054 Optimizing Laterite Soil Microbial Fuel Cells for Community-Centric Electricity Generation in Tropical Underdeveloped Regions

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)

Redding CT STEM Fair Catherine Piscitelli

3060 Determining Trail Making Test B Accuracy in Predicting Driving Preparedness in Pre-Driving-Age Adolescents

Student(s) **Mila Mejnartowicz** **Grade** 10 **Town** Woodbridge

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion

Glastonbury Glastonbury High School Diane Pintavalle

3066 Proteomic Analysis of Autism-Associated Variants in Human ASPM Gene

Student(s) **Presthika Vijaykumar** **Grade** 11 **Town** Glastonbury

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion

Bridgeport Bridgeport Regional Aquaculture Center Kirk Shadle

3077 Utilizing Fucus distichus alginates to develop an enhanced aerosol treatment for Cystic Fibrosis

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

Salisbury The Hotchkiss School Jungah Song

3081 Antioxidative Effects of Sargassum horneri on Alleviating Neurodegeneration Induced by Sustained Alcohol Exposure on Caenorhabditis elegans Model

Student(s) **Remy Lee** **Grade** 10 **Town** Lakeville

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion

Windsor The Loomis Chaffee School Koby Osei-Mensah

3084 Novel Synthesis and Comprehensive Study of Tough Hydrogel for Bioadhesive Applications

Student(s) **Jessica Luo** **Grade** 12 **Town** Newark

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion

Greenwich Brunswick School Dana Montanez

3085 Chlorophyll's Reflection of Infrared Light as a Method to Determine Overall Health of Phaseolus vulgaris and Solanum lycopersicum

Student(s) **Max Lanson** **Grade** 10 **Town** New Canaan

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion
- * Pepsico Engineering Awards --- Finalist - Engineering High School - CSF Medallion

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

Westport Staples High School Amy Parent

3098 The Effect of Diet Composition on the Growth and Development of Colorectal Cancer Tumors in the Drosophila Midgut

Student(s) William Boberski **Grade** 11 **Town** Westport

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion
- * Pepsico Engineering Awards --- Finalist - Engineering High School - CSF Medallion

Farmington Farmington High School Xiaodi Wang

3100 Optimizing the LSTM Deep Learning Model for Arctic Sea Ice Melting Prediction

Student(s) Victoria Pegkou Christofi **Grade** 12 **Town** Unionville

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion
- * M&T Bank Mathematics Awards --- 2nd Place High School- \$300 and Plaque

Westport Greens Farms Academy Juli Gerdes

3101 The Effect of Resveratrol on ALS Positive Flies Locomotor Dysfunction

Student(s) Lilly Hogan **Grade** 12 **Town** Westport

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion

Bridgeport Bridgeport Regional Aquaculture Center Kirk Shadle

3102 Engineering of a Soybean oil-based natural clothing dye

Student(s) Alana Reyes **Grade** 12 **Town** Trumbull

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion
- * Stanley Black & Decker Applied Technology Awards --- Senior High Finalist - Medallion

Farmington Miss Porter's School Christine Scanlon

3105 Testing Prevalence of Bacteria Resistant to Tetracycline, Sulfamethoxazole, and Chloramphenicol Antibiotics in Hotspot Connecticut Environments

Student(s) Sophia Pidvysotski **Grade** 12 **Town** Hartford

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion
- * Petit Family Foundation Women in Science & Engineering Awards --- 2nd Place High School \$300 / plaque

New Haven Engineering and Science University Magnet School Roger Rushworth

3126 Advanced Hybrid Water Treatment Systems: A Comparative Study of Membrane Filtration, Adsorption, and Photocatalysis for Comprehensive Contaminant Removal

Student(s) Saket Aliminate **Grade** 10 **Town** Milford

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion
- * Stanley Black & Decker Applied Technology Awards --- Senior High Finalist - Medallion
- * Stockholm Junior Water Prize --- Certificate, \$25 gift card by CSEF, possible advance to further competition

Westport Staples High School Amy Parent

3128 The Effect of Activating ATR-Kinase on Zygotic Stress, Survival, and DNA Damage

Student(s) Sara De Pinho **Grade** 11 **Town** Westport

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Science Senior High - CSF Medallion

Woodbridge Amity Regional High School Catherine Piscitelli

3133 Determining the Effects of Moisture Content in Artificial Diet on the Survival, Growth, Development, and Pupation of Anoplophora glabripennis

Student(s) Sabrina Osowiecki **Grade** 11 **Town** Orange

- * 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

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

Life Sciences - High School Teams

South Windsor South Windsor High School Danel Eitel

3524 MushBox: In Situ Biodegradation of Municipal Solid Waste through Mycoremediation via Mycelium and Cellulosic Waste Integration

Student(s) **Samarth Basanth** **Grade** 10 **Town** South Windsor
Tejbir Litt **Grade** 10 **Town** South Windsor

- * Life Science Awards with support from Boehringer Ingelheim --- 1st Place- Life Sciences Senior High Team- \$500 (split) & Plaque
- * Environmental Sciences Awards with Connecticut Association of Conservation and Inland Wetlands Commissions --- 1st Place HS- Plaque and \$700 Stipend to Compete at GENIUS Olympiad
- * GENIUS Olympiad --- GENIUS Olympiad Competition for 1st Place HS Environmental Project

Greenwich Brunswick School Dana Montanez

3501 Developing an Organic Microbial Solution for the Plastic Accumulation Problem in Water Sources

Student(s) **Gabriel Trahanas** **Grade** 11 **Town** Riverside
Oliver Velasco **Grade** 11 **Town** Greenwich

- * Life Science Awards with support from Boehringer Ingelheim --- 2nd Place- Life Sciences Senior High Team- \$300 (split) & Plaque
- * EnergizeCT Future Sustainability Awards --- High School Finalist - Medallion

Norwich Norwich Technical High School Aleatha Pelloni

3509 Renewable fuel using anaerobic digestion

Student(s) **Jasmine Coulombe** **Grade** 11 **Town** Chaplin
Tessa Lambert **Grade** 11 **Town** Scotland

- * Life Science Awards with support from Boehringer Ingelheim --- 3rd Place - Life Sciences Senior High Team - Plaque
- * EnergizeCT Technical High School Science & Technology Awards --- 1st Place- Technical High School, Plaque & Stipend to Compete at GENIUS Olympiad
- * EnergizeCT Future Sustainability Awards --- High School Finalist - Medallion
- * GENIUS Olympiad --- GENIUS Olympiad Competition for 1st Place Technical High School

Life Sciences - Middle School 7th Grade

Waterbury ACES at Chase Lisa Debany

2005 Reducing Lycorma delicatula, Lantern Fly, Infestation: Using Essential Oils to Address Crop Damage and Food Shortages.

Student(s) **Besjana Veliu** **Grade** 7 **Town** Waterbury

- * Life Science Awards with support from Boehringer Ingelheim --- 1st Place- Life Sciences 7th grade- \$300 & trophy
- * Petit Family Foundation Women in Science & Engineering Awards --- Middle School Finalist - Medallion
- * Alexion Biotechnology Awards --- 4th Place Biotechnology 7th grade - trophy
- * Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners

Windsor Academy of Aerospace and Engineering Michelle Bellinger

2003 The Study Of Novel Toothbrush Cleaning Methods To Decrease Bacterial Surface Growth Using Ultraviolet (UV) Germicidal Light And Mouthwash

Student(s) **Ana-Marlene Davis** **Grade** 7 **Town** Broad Brook

- * Life Science Awards with support from Boehringer Ingelheim --- 2nd Place- Life Sciences 7th grade- \$200 & trophy
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion

Stamford Bi-Cultural Hebrew Academy Chris Graseck

2004 Growing algae in different salinities

Student(s) **Aaron Palker** **Grade** 7 **Town** Stamford

- * Life Science Awards with support from Boehringer Ingelheim --- 3rd Place- Life Sciences 7th grade- \$100 & trophy

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

Bristol St. Matthew School Danielle Persichetti

2002 Which Moisturizer is Best?

Student(s) Lauren Gillis **Grade 7** **Town** Bristol

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Sciences 7th grade - CSF Medallion
- * Pepsico Engineering Awards --- 2nd Place- Engineering MS- \$200 & trophy
- * Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners

Hamden Hamden Hall Country Day School Paulomi Aldo

2008 How Does Temperature Effect Nitrogen Fixation Pods in Legumes

Student(s) Kinan Harb **Grade 7** **Town** Milford

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Sciences 7th grade - CSF Medallion

Life Sciences - Middle School 8th Grade

Greenwich Central Middle School Andrew Bramante

2516 Development of a Simple Salivary Rapid Diagnostic for the Detection of Iodine Deficiencies

Student(s) Tyler Malkin **Grade 8** **Town** Greenwich

- * Life Science Awards with support from Boehringer Ingelheim --- 1st Place- Life Sciences 8th grade- \$300 & trophy
- * Connecticut Science Teachers Association's Marty Tafel Student Research Award --- Life Sciences 8th Grade - \$500 and invite to CSTA Award Banquet
- * Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners

Greenwich Eastern Middle School Andrew Bramante

2501 Design of a Smart-Bandage to provide lasting Itch-Relief and Healing for an Insect Bite.

Student(s) Lily Bittman **Grade 8** **Town** Greenwich

- * Life Science Awards with support from Boehringer Ingelheim --- 2nd Place- Life Sciences 8th grade- \$200 & trophy
- * Stanley Black & Decker Applied Technology Awards --- 3rd Place Middle School - \$100 and Plaque, Medallion
- * Alexion Biotechnology Awards --- 2nd Place Biotechnology 8th grade - \$200 & trophy
- * Connecticut Science Supervisors Association --- \$125 for a middle school project

Avon Talcott Mountain Academy Brigette Zacharczenko

2502 Reducing the Waste of Polyethylene Plastic by Galleria mellonella

Student(s) Yveson Hsiao **Grade 8** **Town** Farmington

- * Life Science Awards with support from Boehringer Ingelheim --- 3rd Place- Life Sciences 8th grade- \$100 & trophy
- * Environmental Sciences Awards with Connecticut Association of Conservation and Inland Wetlands Commissions --- 2nd Place MS- \$200, Trophy

New Haven Worthington Hooker School Douglas Jones

2503 The Influence of Various Factors on Yeast Fermentation

Student(s) Roko Skarica **Grade 8** **Town** New Haven

- * Life Science Awards with support from Boehringer Ingelheim --- 4th Place- Life Sciences 8th grade- trophy

Avon Talcott Mountain Academy Brigette Zacharczenko

2509 Will Roaches Direct Other Roaches to Food?

Student(s) Talia McKeen **Grade 8** **Town** West Granby

- * Life Science Awards with support from Boehringer Ingelheim --- 5th Place- Life Sciences 8th grade- trophy
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion

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

Greenwich Eastern Middle School Andrew Bramante

2512 Emotionless Negotiator Droid

Student(s) **Louw Otto** **Grade 8** **Town** Riverside

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Sciences 8th grade - CSF Medallion
- * Stanley Black & Decker Applied Technology Awards --- Middle School Finalist - Medallion
- * Infosys Foundation Computer Science Awards --- 2nd Place Middle School - \$200, Trophy

Avon Talcott Mountain Academy John Pellino

2520 The Boreabrush

Student(s) **Oliver Lind** **Grade 8** **Town** Harwinton

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Sciences 8th grade - CSF Medallion
- * Stanley Black & Decker Applied Technology Awards --- Middle School Finalist - Medallion
- * Lemelson Early Inventor Award --- Certificate & \$100 cash award from Lemelson Foundation

Life Sciences - Middle School Teams

Wilton Middlebrook School William Desroches

1017 BEAT THE PEAT - RICE HUSK, THE SUSTAINABLE AND ECO-FRIENDLY ALTERNATIVE TO PEAT MOSS

Student(s) **Kabir Rokkam** **Grade 7** **Town** WILTON

Shushruth Balaji **Grade 7** **Town** Wilton

- * Life Science Awards with support from Boehringer Ingelheim --- 1st Place- Life Sciences MS Team- \$150 each & trophy
- * Environmental Sciences Awards with Connecticut Association of Conservation and Inland Wetlands Commissions --- 1st Place MS - \$300, Trophy
- * Alexion Biotechnology Awards --- 2nd Place Biotechnology 7th grade - \$200 & trophy
- * Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners

Danbury Westside Middle School Academy Nancy Barlow

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

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

Wilton Middlebrook School Allison Norful

1014 Growing Pleustrus Ostreatus Mycelium with Full Synthetic Engine Lubricant to Create Biodegradable Alternatives to Supersede Environmentally-Harmful Substances

Student(s) **Arav Gupta** **Grade 8** **Town** Wilton

Gopika Kaimal **Grade 8** **Town** Wilton

- * Life Science Awards with support from Boehringer Ingelheim --- 3rd Place- Life Sciences MS Team- trophy

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

New Haven Worthington Hooker School Douglas Jones

1020 Biodegradable Hydrogels: Improving our Agriculture's Sustainability

Student(s) **Sofia Janiga** **Grade 8** **Town** New Haven
Azalea Deener **Grade 8** **Town** New Haven

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Sciences Middle School Team - CSF Medallion
- * Environmental Sciences Awards with Connecticut Association of Conservation and Inland Wetlands Commissions --- MS Finalist - CSF Medallion
- * NYUC Pony Club Equine or Animal Science Award --- \$100 Cash Award for excellence in equine studies

Danbury Westside Middle School Academy Nancy Barlow

1025 The Effect of Different Types of Grass on Soil Erosion

Student(s) **Sayam Dand** **Grade 8** **Town** Danbury
Kylie Capone **Grade 8** **Town** Danbury
Ayme Calero **Grade 8** **Town** danbury

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Sciences Middle School Team - CSF Medallion
- * Geology/Historic Project of Merit Award --- \$150 or 3 x \$50 - Earth Science - Field work with Geologic or historic value

Enfield Chiaravalle Academy Timothy Coleman

1026 How Does Different Types of Food Affect A Chicks' Growth and Learning Ability?

Student(s) **Zoha Shamsi** **Grade 7** **Town** Suffield
Leah Caswell **Grade 7** **Town** Enfield
Marin Czerwiec **Grade 7** **Town** Agawam

- * Life Science Awards with support from Boehringer Ingelheim --- Finalist - Life Sciences Middle School Team - CSF Medallion
- * Alexion Biotechnology Awards --- 3rd Place Biotechnology 7th grade - \$100 & trophy
- * U.S. Agency for International Development (USAID) --- Certificate and \$25 gift card given by CSEF

Physical Sciences - High School Individual

Simsbury Westminster School Suzanne Bailey

6043 Dual-Degree-of-Freedom Pneumatic Shoulder Rehabilitation Device Based on Flexible Materials

Student(s) **Meiyin Ren** **Grade 11** **Town** Simsbury

- * Connecticut Science Fair Association Physical Science Awards --- 1st Place - Physical Sciences Senior High Individual - \$500 & Plaque
- * H. Joseph Gerber Award of Excellence presented by the Connecticut Academy of Science and Engineering --- Physical Sciences 1st HS \$1,000, Solid Silver Medal of Excellence, Invite to CASE Annual Mtg
- * Zepke Awards --- \$125 - For the Best Use of Electronic Circuitry- Senior High

Windsor The Loomis Chaffee School Koby Osei-Mensah

6044 A Deep Semi-Supervised Domain Generalization Approach for Epileptic Seizure Prediction using Electro Encephalo Graphy (EEG)

Student(s) **Sunwoo An** **Grade 9** **Town** Seoul

- * Connecticut Science Fair Association Physical Science Awards --- 2nd Place- Physical Sciences Senior High Individual - \$300 & Plaque
- * Stanley Black & Decker Applied Technology Awards --- Senior High Finalist - Medallion
- * Pepsico Engineering Awards --- 1st Place- Engineering Senior High- \$500 & plaque,
- * Alexion Biotechnology Awards --- 2nd Place Biotechnology Senior High - \$300 & plaque
- * MTU Aero Engines North America, Inc. --- MTU Aero Engines Mechanical Engineering Innovative Concept Award - \$250

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

Stamford King School Victoria Schulman

6097 DETICKT IT: A Machine Learning-Based Application for Real-Time Tick Identification and Spatiotemporal Disease Risk Assessment

Student(s) **Antonia Kolb** **Grade** 12 **Town** New Canaan

- * Connecticut Science Fair Association Physical Science Awards --- 3rd Place- Physical Sciences Senior High Individual - \$200 & Plaque
- * Pfizer Computational Biology and Bioinformatics Awards --- Senior High Finalist - Medallion
- * Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion
- * Christopher T. Borowiec Excellence in Innovation Awards --- \$100 Cash for Excellence in Innovation with emphasis in Artificial Intelligence

Farmington Farmington High School Alexandra Raymunt

6054 Steeping Towards Safety: Addressing Mycotoxin Risks in Coffee and Tea

Student(s) **Rhea Doshi** **Grade** 9 **Town** Farmington

- * Connecticut Science Fair Association Physical Science Awards --- 4th Place- Physical Sciences Senior High Individual - Plaque
- * Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion
- * Institute of Food Technologists, Nutmeg Section --- \$150 award + invitation to Awards Night Dinner with guest

Wilton Wilton High School Nikolas D'Agnesse

6008 Fiscatch: A Phishing Detection Website

Student(s) **Rohil Jain** **Grade** 12 **Town** Wilton

- * Connecticut Science Fair Association Physical Science Awards --- 5th Place- Physical Sciences Senior High Individual - Plaque
- * Stanley Black & Decker Applied Technology Awards --- Senior High Finalist - Medallion

Windsor Academy of Aerospace and Engineering Michelle Bellinger

6002 Integrating Piezoelectric Sensors and Photovoltaic Material in an Artificial Energy-Harvesting Model Tree

Student(s) **Laasya Chintapalli** **Grade** 11 **Town** Farmington

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Stanley Black & Decker Applied Technology Awards --- Senior High Finalist - Medallion
- * EnergizeCT Alternative & Renewable Energy Awards --- 2nd Place High School - \$300 Cash and Plaque
- * IEEE, Connecticut Section --- \$100 Honorable Mention
- * Society of Women Engineers - Hartford Section --- Scientific Calculator
- * Jon Stone Memorial Award --- Jon Stone Award for Innovative Engineering- \$100

Windsor Academy of Aerospace and Engineering Michelle Bellinger

6009 Reinforcing the Cybersecurity of Medical Data via Software Countermeasures against Malware in Heart Monitoring Technology

Student(s) **Sujay Chava** **Grade** 11 **Town** Ellington

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Stanley Black & Decker Applied Technology Awards --- 3rd Place High School - \$ 200 and Plaque, Medallion
- * Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion
- * Pepsico Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * University of Connecticut - Early College Experience --- UCONN Early College Experience Program: Frontiers in Science - Co-Op \$100 Gift Certificate
- * Zepke Awards --- \$125 - For the Best Use of Electronic Circuitry- Senior High

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

Woodbridge Amity Regional High School Catherine Piscitelli

6010 Creation of an Environment-Adaptive Reaction Algorithm Implemented on a Novel Smart Fluidic Servo Actuator to Provide a Sense of Pseudo-Exproprioception and Exteroception

Student(s) Aditi Bhattamishra **Grade** 12 **Town** Orange

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Stanley Black & Decker Applied Technology Awards --- Senior High Finalist - Medallion
- * Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion
- * Pepsico Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Wisner Memorial Award --- \$ 1000 cash + Silver Bowl (\$2000 cash if a team) High School

South Windsor South Windsor High School Kevin Snyder

6013 Scientific understanding of solar physics with image based neural networks

Student(s) Pragyan Yadav **Grade** 12 **Town** South Windsor

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Stanley Black & Decker Applied Technology Awards --- Senior High Finalist - Medallion
- * Infosys Foundation Computer Science Awards --- 1st Place High School - \$500, Plaque
- * University of Connecticut - Early College Experience --- UCONN Early College Experience Program: Physical Sciences - Co-Op \$100 Gift Certificate

Hamden Hamden Hall Country Day School Gina D'Angelo

6025 Deep learning based drug response prediction algorithm about synergistic and antagonistic responses of cell lines and drug combos.

Student(s) Jiahui Chen **Grade** 11 **Town** New Haven

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Pfizer Computational Biology and Bioinformatics Awards --- Senior High Finalist - Medallion
- * Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion
- * Lunch with a Patent Attorney --- Lunch with a Patent Attorney

Bridgeport Bridgeport Regional Aquaculture Center Kirk Shadle

6030 Using Sodium Alginate Derived Porous Carbon Material to Increase Capacitance of a Cellulose Matrix

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

Kent Kent School Jesse Klingebiel

6032 CardioXNet: Representation Learning for Accurate Cardiovascular Disease Diagnosis from X-ray Images

Student(s) Jiwon Hwang **Grade** 10 **Town** Kent

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * J.A. Augustine and H. Glista Awards --- \$100 H. Glista Award for Physical Sciences

New Haven Engineering and Science University Magnet School Roger Rushworth

6036 Evaluating Hyperparameter Tuned Machine Learning Classifiers for Pancreatic Cancer Detection via Urinary Biomarkers

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

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

New Haven Engineering and Science University Magnet School Alyssa Anderson

6052 Synthesis of Porous Polymer Sponge Matrix using Modified Sodium Alginate Clay Compound for Adsorptive Removal of Microplastics and Oil from Contaminated Water

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

Greenwich Greenwich High School Andrew Bramante

6058 Detection of Nanoplastics within Complex Environmental and Food Resource Matrices via Machine Learning

Student(s) Henry Jin **Grade** 10 **Town** Greenwich

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Pepsico Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Aquarion Water Company --- 1st, \$250.00 Cash - Grade 9-12 For Excellence in Water Quality or Environmental Management

Farmington Farmington High School Alexandra Raymunt

6068 Origami-Inspired Paper-Based Multiplex Device for Water Contamination Monitoring

Student(s) Jiayi Liu **Grade** 11 **Town** Farmington

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * ISA - International Society for Automation - Ct. Valley Section --- 1st - \$125 award
- * Southeastern New England Marine Educators (SEMEME) --- \$100 award and membership for student and teacher in SEMEME - 1st Place Senior
- * Aquarion Water Company --- 3rd \$100.00 Cash - Grade 9-12 For Excellence in Water Quality or Environment Management
- * University of New Haven Scholarship Awards --- University of New Haven 4 year scholarship - \$96,000 (\$24,000 per year) for exemplary 11th grade project

Stamford King School Victoria Schulman

6072 Clonal Evolution of Non-Small Cell Lung Cancer Reveals TP53/EGFR Maintenance and SETD2 Selection in Metastases

Student(s) Parker Hayashi **Grade** 11 **Town** Riverside

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion

Darien Darien High School Christine Leventhal

6082 Simulating CMB temperature signal to analyze the effects of noise

Student(s) Bo-Jun Qin **Grade** 12 **Town** Darien

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Connecticut College-Physics, Astronomy, & Geophysics Dept. --- Senior Award: Certificate, \$100 Cash

Bethel Bethel High School Raymond Turek

6090 Investigating the Usage of Computer Microstructure Generation Techniques in the Synthesis of Novel Scale Independent Structures

Student(s) Christopher Zuraw **Grade** 11 **Town** Bethel

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Senior High - CSF Medallion

[SchTown] [School] [Teacher]
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Woodbridge Amity Regional High School Catherine Piscitelli

6098 Modeling Interactions Between the Neocortex and the Basal Ganglia During Temporal Sequential Learning Using a Hierarchical Temporal Memory Artificial Neural Network

Student(s) Annika Yun **Grade** 12 **Town** Orange

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Pfizer Computational Biology and Bioinformatics Awards --- 1st Place High School - \$500, Plaque
- * Stanley Black & Decker Applied Technology Awards --- 2nd Place High School - \$300 and Plaque Medallion
- * IEEE, Connecticut Section --- \$100 Honorable Mention

Physical Sciences - High School Teams

Wallingford Choate Rosemary Hall Andrew Murgio

6525 AgriBotanical: An Intelligent Continuum-Maneuver Robot for Monitoring and Managing Arboreal Wild Bee Colonies

Student(s) Jingyuan Zhang **Grade** 11 **Town** Wallingford

Xiyin Yang **Grade** 11 **Town** Wallingford

- * Connecticut Science Fair Association Physical Science Awards --- 1st Place- Physical Sciences Senior High Team- \$500 (split) & Plaque
- * Stanley Black & Decker Applied Technology Awards --- 1st Place High School - \$500 and Plaque, Medallion
- * Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion
- * Pepsico Engineering Awards --- 2nd Place- Engineering Senior High- \$300 & plaque
- * MTU Aero Engines North America, Inc. --- MTU Aero Engines Mechanical Engineering Applied Principles Award - \$250
- * IEEE, Connecticut Section --- \$250 Honors Award -Senior
- * Arthur & Ruth Mensing Awards --- Mensing Award Excellence in the High School Physical Sciences - \$500

South Windsor South Windsor High School Danel Eitel

6501 The Use of Piezoelectric Technology for a more Efficient and Cost-Effective Approach to Electronics Cooling

Student(s) Adithya Anand **Grade** 11 **Town** South Windsor

Jason Thokchom **Grade** 11 **Town** South Windsor

- * Connecticut Science Fair Association Physical Science Awards --- 2nd Place- Physical Sciences Senior High Team- \$300(split) & Plaque
- * EnergizeCT Alternative & Renewable Energy Awards --- High School Finalist - Medallion
- * EnergizeCT Future Sustainability Awards --- High School Finalist - Medallion
- * Pepsico Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * IEEE, Connecticut Section --- \$100 Honorable Mention
- * Jon Stone Memorial Award --- Jon Stone Award for Innovative Engineering- \$100

South Windsor South Windsor High School Danel Eitel

6507 Optimized Magneto-Inertial Fusion for Practical Use

Student(s) Jeremy Shiju **Grade** 11 **Town** South Windsor High School

Akshaj Nadimpalli **Grade** 11 **Town** South Windsor

Daniel Stoyanov **Grade** 11 **Town** South Windsor

- * Connecticut Science Fair Association Physical Science Awards --- 3rd Place - Physical Sciences Senior High Team - Plaque
- * EnergizeCT Future Sustainability Awards --- High School Finalist - Medallion

Windsor Academy of Aerospace and Engineering Michelle Bellinger

6515 The Effect of Surface Texture on the Efficiency of a Spoiler (airfoil) in Formula 1 Race Cars.

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

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

Greenwich Brunswick School Dana Montanez

5014 The Efficiency of Toroidal Propellers on Plane Engines and Boat Propellers

Student(s) **Thomas Carney** **Grade** 10 **Town** New Canaan
Pierce Crosby **Grade** 10 **Town** Greenwich

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Senior Team - CSF Medallion
- * Vanderbilt Chemicals, LLC --- \$150 Vanderbilt Chemicals Award for Excellence in Tribology and Sustainable Lubrication
- * ISA - International Society for Automation - Ct. Valley Section --- 3rd - \$50 award

Physical Sciences - Middle School 7th Grade

Westport Greens Farms Academy Mathieu Freeman

5014 Novel Radiation Shielding for Radiation Therapy and Arabidopsis on Mars

Student(s) **Dylan Karpf** **Grade** 7 **Town** Westport

- * Connecticut Science Fair Association Physical Science Awards --- 1st Place- Physical Sciences 7th Grade Ind. - \$300 & trophy
- * Pepsico Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
- * Alexion Biotechnology Awards --- 1st Place Biotechnology 7th grade - \$300 & trophy
- * Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners
- * Astronomical Society of Greater Hartford - The Charles Hammond Award for Excellence in Astronomy --- Junior Project-\$150, subscription to Sky and Telescope, ASGH membership and meeting invitation
- * Electric Boat Management Association Science and Engineering Research Awards --- Top Prize in Nuclear Energy - \$100 Cash for top project that has innovative nuclear applications
- * Demos R Us Awards --- \$150 Cash Award-- Clear Execution of Research- 7th Grade

Manchester Saint James School Ellen Oei

5017 Crusty n' Rusty

Student(s) **Brendan Abbamonte** **Grade** 7 **Town** Vernon

- * Connecticut Science Fair Association Physical Science Awards --- 2nd Place- Physical Sciences 7th Grade Ind. - \$200 & trophy
- * Stanley Black & Decker Applied Technology Awards --- Middle School Finalist - Medallion
- * Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners

Avon Talcott Mountain Academy John Pellino

5009 The Aura Project: Landing Rockets at a Model Scale

Student(s) **Kwabena Addai - Boateng** **Grade** 8 **Town** East Hartford

- * Connecticut Science Fair Association Physical Science Awards --- 3rd Place- Physical Sciences 7th Grade Ind. - \$100 & trophy
- * Stanley Black & Decker Applied Technology Awards --- Middle School Finalist - Medallion
- * Pepsico Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
- * U.S. Air Force --- Certificate & USAF Merchandise Package
- * Christopher T. Borowiec Excellence in Innovation Awards --- \$100 Cash for Excellence in Planetary Science

Danbury Saint Gregory the Great School Christine Fahey

5019 The Fastest Way to Solve a Rubik's Cube

Student(s) **Leonardo Lazzara** **Grade** 7 **Town** Brookfield

- * Connecticut Science Fair Association Physical Science Awards --- 4th Place- Physical Sciences 7th Grade Ind. - trophy

[SchTown] [School] [Teacher]
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Wilton Middlebrook School Paige Randall

5016 FINDING ENERGY CONTENT IN FOOD BY USING CALORIMETER

Student(s) Kanira Baskar **Grade 7** **Town** WILTON

- * Connecticut Science Fair Association Physical Science Awards --- 5th Place- Physical Sciences 7th Grade Individual - trophy

Physical Sciences - Middle School 8th Grade

Greenwich Central Middle School Andrew Bramante

5514 The Synergistic Improvement of Indoor Air HEPA-Filtration using Concurrent Dehumidification

Student(s) Mikah Kaalund **Grade 8** **Town** Greenwich

- * Connecticut Science Fair Association Physical Science Awards --- 1st Place- Physical Sciences 8th Grade Ind.- \$300 & trophy
- * Connecticut Science Teachers Association's Marty Tafel Student Research Award --- Physical Sciences 8th Grade - \$500 and invite to CSTA Award Banquet
- * Alexion Biotechnology Awards --- 1st Place Biotechnology 8th grade - \$300 & trophy
- * Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners
- * Society of Women Engineers - Hartford Section --- Scientific Calculator

Greenwich Central Middle School Andrew Bramante

5504 Simple Filtration of Fertilizer-ion Water Contaminants via Implementation of Phosphate and Nitrate Absorbency Pads

Student(s) Caroline Stowe **Grade 8** **Town** Greenwich

- * Connecticut Science Fair Association Physical Science Awards --- 2nd Place- Physical Sciences 8th Grade Ind. - \$200 & trophy
- * Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners
- * Aquarion Water Company --- 3rd. \$50.00 Cash - Grade 7-8 For Excellence in Water Quality or Environmental Management

Waterbury ACES at Chase Sandra Solimene

5511 Creating Cost- Effective Eco-Friendly Insulation

Student(s) Andrew Daukas **Grade 8** **Town** Middlebury

- * Connecticut Science Fair Association Physical Science Awards --- 3rd Place- Physical Sciences 8th Grade Ind, - \$100 & trophy
- * Alexion Biotechnology Awards --- 5th Place Biotechnology 8th grade- trophy

Wilton Middlebrook School Janica Bagosy

5510 Burnt: A web-based application to help adolescents self-assess and seek help for stress and poor mental health

Student(s) Jackson Norful **Grade 8** **Town** Wilton

- * Connecticut Science Fair Association Physical Science Awards --- 4th Place- Physical Sciences 8th Grade Ind. - trophy
- * Pfizer Computational Biology and Bioinformatics Awards --- 2nd Place Middle School - \$200, Trophy
- * Infosys Foundation Computer Science Awards --- 3rd Place Middle School- \$100, Trophy
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion

Trumbull Christian Heritage School Nicole Camacho

5515 How does the pH of a liquid affect its spherification?

Student(s) Gaia Cioppa **Grade 8** **Town** Greenwich

- * Connecticut Science Fair Association Physical Science Awards --- 5th Place- Physical Sciences 8th Grade Ind. - trophy

[SchTown] [School] [Teacher]
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Waterbury ACES at Chase Sandra Solimene

5503 The Bag that Saved the Homeless

Student(s) **Evaleise Diaz** **Grade 8** **Town** Meriden

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- * Demos R Us Awards --- \$200 Cash Award- Clear Execution of Research- 8th Grade
- * Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2024 Invention Convention, June 8

Physical Sciences - Middle School Teams

Windsor Academy of Aerospace and Engineering Michelle Bellinger

4001 Combining Optical Wireless Communications (OWC) and Neuromorphic Architecture for Large-Scale Computations

Student(s) **Rithvik Suren** **Grade 8** **Town** Ellington
Aarav Chevva **Grade 8** **Town** Ellington

- * Connecticut Science Fair Association Physical Science Awards --- 1st Place- Physical Sciences MS Team- \$150 each & trophy
- * Infosys Foundation Computer Science Awards --- 1st Place Middle School - \$300, Trophy
- * 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

Windsor Academy of Aerospace and Engineering Michelle Bellinger

4019 Using Vortex Hydropower Turbines to Harvest Electrical Energy

Student(s) **Marcus Davis** **Grade 8** **Town** Broad Brook
Dylan Gao **Grade 7** **Town** Coventry

- * Connecticut Science Fair Association Physical Science Awards --- 2nd Place- Physical Sciences MS Team- \$100 each & trophy
- * EnergizeCT Alternative & Renewable Energy Awards --- Middle School Finalist - Medallion
- * Robotics And Beyond --- Middle School- For excellence in engineering design; \$230 toward Robotics And Beyond STEM and Design summer camp, \$50 cash if cannot attend camp, Certificate.

Bozrah Fields Memorial School Joshua Fish

4013 Oxidation rates of different metals in various liquids and temperatures.

Student(s) **Elise Kobelski** **Grade 7** **Town** Bozrah
Benjamin Savoie **Grade 7** **Town** Bozrah

- * Connecticut Science Fair Association Physical Science Awards --- 3rd Place- Physical Sciences MS Team- trophy
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion

Danbury Westside Middle School Academy Nancy Barlow

4007 The Effectiveness of Different Distillation Methods for Desalination

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

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

Fairfield Fairfield Woods Middle School Michael Sgoutas

4021	Automotive CO2 Emissions Bio-Filtration System
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Student(s)	Alexander Majewski	Grade 7	Town Fairfield
	Parshwa Shah	Grade 7	Town Fairfield

* Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Jr Team - CSF Medallion

* Pepsico Engineering Awards --- 3rd Place- Engineering MS \$100 & trophy