



Conn. Science & Engineering Fair

Quinnipiac University

March 3 - 15, 2025

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:
 - School Town
 - School
 - Last Name

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

Avon Avon High School Andrea Galuska
 6088 Harnessing the Power of the Wind: A Comparative Analysis on HAWT, Savonius and Darrius Wind Turbines and Their Efficiency

Student(s) Nate Lee **Grade** 10 **Town** Avon

- * EnergizeCT Alternative & Renewable Energy Awards --- 3rd Place High School - \$100 Cash and Plaque
- * EnergizeCT Future Sustainability Awards --- High School Finalist - Medallion
- * Wisner Chairman's Award --- \$500 cash & plaque

Avon Avon High School Galuska Andrea
 3132 Pathonix: Enhancing Ovarian Cancer Detection with an Explainable and Efficient Ensemble Learning Framework

Student(s) Vishnu Mukku **Grade** 10 **Town** Avon

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion
- * Pfizer Computational Biology and Bioinformatics Awards --- Senior High Finalist - Medallion
- * Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion

Avon Avon Old Farms School Jack Sanford
 3535 Investigating Novel Adjuvant Therapies to Combat Tetracycline Efflux Pump Resistance in Escherichia Coli

Student(s) Jadon Subbu **Grade** 12 **Town** Avon

Ahren Lehnhoff **Grade** 11 **Town** Avon

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- 1st Place- Life Sciences Senior High Team- \$300 (split) & Plaque

Avon Talcott Mountain Academy Hannah Marye
 5508 The impact of 3D-printed low-cost quadrupedal robots using swarm mechanics on highway litter cleaning services

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

- * Stanley Black & Decker Applied Technology Awards --- Middle School Finalist - Medallion
- * Infosys Foundation Computer Science Awards --- Middle School Finalist - Medallion

Avon Talcott Mountain Academy Kenneth Wright
 2010 The Use of Short-form Media and its Correlation With Working Memory Functions in Adults.

Student(s) Konstantinos Raptis **Grade** 7 **Town** West Hartford

- * Alexion Biotechnology Awards --- 2nd Place Biotechnology 7th grade - \$150 & trophy

Avon Talcott Mountain Academy Brigette Zacharczenko
 2513 Pupation Behaviors in Manduca sexta: Substrate Choices and Pupation Success

Student(s) Arya Samat **Grade** 8 **Town** Avon

- * Connecticut Association of Conservation and Inland Wetlands Commissions Environmental Sciences Awards --- 2nd Place MS- \$150, Trophy

Bethany Amity Middle School Bethany Keith Smolinski
 4024 Novel Xylem Water Filter Spigot For Reusable, Universal 5-Gallon Water Jug

Student(s) Alexie Petrov **Grade** 8 **Town** Woodbridge

Arshya Senajani **Grade** 8 **Town** Woodbridge

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- Finalist - Physical Sciences Jr Team - CSF Medallions
- * Connecticut Association of Conservation and Inland Wetlands Commissions Environmental Sciences Awards --- MS Finalist - CSF Medallion

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

Bethel Bethel High School Turek Ray

6035 Advancing Personalized Seizure Control: A Cutting-Edge Real-Time EEG Feedback System for Precision Adaptive Neurostimulation

Student(s) **Srirama Desiraju** **Grade** 11 **Town** Bethel

- * Pfizer Computational Biology and Bioinformatics Awards --- Senior High Finalist - Medallion
- * University of New Haven Scholarship Awards --- University of New Haven 4 year scholarship - \$104,000 (\$26,000 per year) for exemplary 11th grade project
- * Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2025 Invention Convention, May 3

Bethel Bethel High School Raymond Turek

3084 Microplastic Influence on Microbial Strength Against Disinfection

Student(s) **Shravya Mankala** **Grade** 10 **Town** Bethel

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion
- * Connecticut Association of Conservation and Inland Wetlands Commissions Environmental Sciences Awards --- HS Finalist - CSF Medallion

Bozrah Fields Memorial School Joshua Fish

4016 A Study of the Impact of Slope, Materials, and Lubrication on Friction.

Student(s) **Elise Kobelski** **Grade** 8 **Town** Bozrah
Hannah East **Grade** 8 **Town** Bozrah
Serena BunkerCai **Grade** 8 **Town** Bozrah

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- 3rd Place- Physical Sciences MS Team- trophies
- * Connecticut Science Fair Association Mathematics Awards --- 2nd Place Middle School- \$150 and Trophy
- * Petit Family Foundation Women in Science & Engineering Awards --- Middle School Finalist - Medallion
- * Connecticut College-Physics, Astronomy, & Geophysics Dept. --- Junior Award: Certificate, \$100 Cash
- * J.A. Augustine and H. Glista Awards --- \$100 for excellence in Physical Sciences
- * Susan and Stanley Lessoff Memorial --- Susan and Stanley Lessoff Memorial Award - \$250 Cash and Plaque MS

Bozrah Fields Memorial School Joshua Fish

4011 What impact will different sphere and track variables have on the performance of a model roller coaster?

Student(s) **Benjamin Savoie** **Grade** 8 **Town** Gilman
Isaiah Negron-Rygielski **Grade** 8 **Town** Bozrah

- * Connecticut Science Fair Association Mathematics Awards --- 1st Place Middle School- \$200 and Trophy
- * U.S. Air Force --- Certificate & USAF Merchandise Package

Bozrah Fields Memorial School Joshua fish

1025 A study of the efficiency of ice melt substances and their environmental impact on roadside vegetation

Student(s) **Analise Williams** **Grade** 7 **Town** bozrah
Ella Sikorski **Grade** 7 **Town** Bozrah

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Sciences Middle School Team - CSF Medallion
- * Petit Family Foundation Women in Science & Engineering Awards --- Middle School Finalist - Medallion
- * Connecticut Association of Conservation and Inland Wetlands Commissions Environmental Sciences Awards --- MS Finalist - CSF Medallion
- * Alexion Biotechnology Awards --- 5th Place Biotechnology 7th grade - trophy
- * Association for Women Geoscientists --- 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
- * American Society of Safety Professionals, CT Valley Chapter --- \$150 grade 7-8 project
- * Alumni Botany Awards --- Alumni Middle School Botany Award- \$100 Cash

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

Bridgeport Black Rock School Elizabeth Moran

2018 Mouth Bacteria Experiment

Student(s) JohnJairo Arriaza **Grade 7** **Town** Bridgeport

* Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Sciences 7th grade - CSF Medallion

Bridgeport Black Rock School Elizabeth Moran

5016 Note Taking App

Student(s) Halle Clark **Grade 7** **Town** Bridgeport

* Urban School Challenge Awards with Connecticut Academy of Science & Engineering and OTIS --- Middle School Finalist - Medallion

Bridgeport Bridgeport Military Academy Arun Kadam

6525 Exploring Airfoil Shapes and Generating Lift

Student(s) Gerson Andino **Grade 11** **Town** Bridgeport

Bryan Reis **Grade 11** **Town** Bridgeport

* Urban School Challenge Awards with Connecticut Academy of Science & Engineering and OTIS --- 5th Place High School - Plaque, Medallion

Bridgeport Bridgeport Regional Aquaculture Center Kirk Shadle

6043 Using Swarm Artificial Intelligence to Generate Artificial Human Genomes

Student(s) Alexander Haniph **Grade 12** **Town** Trumbull

* Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion

Bridgeport Fairchild Wheeler-Biotech Tara Liskov

3125 The Effect of Natural Root Stimulators on Plant Height and Root Growth

Student(s) Ite Daini **Grade 12** **Town** Bridgeport

* Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion

* Urban School Challenge Awards with Connecticut Academy of Science & Engineering and OTIS --- Senior High Finalist - Medallion

Bridgeport Fairchild Wheeler-Biotech Tara Liskov

6072 Energy Production from a Homemade Hydrogen Cell

Student(s) Wyatt Speight **Grade 12** **Town** Fairfield

* EnergizeCT Alternative & Renewable Energy Awards --- 2nd Place High School - \$200 Cash and Plaque

* Constellation Energy --- 1st: \$150.00 Cash - Grade 9 - 12: For Excellence in clean renewable / sustainable energy

* GENIUS Olympiad --- GENIUS Olympiad Competition for HS Environmental, Energy, Ecology, or Biodiversity Project

Bridgeport Fairchild Wheeler-Infotech Ricki Chiem

6518 The Benefits of Designing Base Isolators for Earthquake Proof Structures

Student(s) Ayden Gamble **Grade 10** **Town** Bridgeport

Eddie Bermudez **Grade 11** **Town** Bridgeport

* Urban School Challenge Awards with Connecticut Academy of Science & Engineering and OTIS --- Senior High Finalist - Medallion

* American Society of Safety Professionals, CT Valley Chapter --- \$200 grade 9-12 project

Bridgeport Fairchild Wheeler-Infotech Jamie Dittrich

3150 Building an AI to Identify Skin Conditions

Student(s) Mikayla Larbi **Grade 9** **Town** Bridgeport

* Urban School Challenge Awards with Connecticut Academy of Science & Engineering and OTIS --- Senior High Finalist - Medallion

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

Bridgeport Fairchild Wheeler-Infotech Ricki Chiem

6524 Analyzing the Efficiency of Hydro-Electric Power

Student(s) **Ryan Salthouse** **Grade** 10 **Town** stratford
Keller Passaro **Grade** 11 **Town** stratford

* EnergizeCT Future Sustainability Awards --- High School Finalist - Medallion

Bridgeport Geraldine Johnson Kelly Mulligan Mulligan

2523 Seeing the Unseen: Smart Glasses that Brings Sight to the Blind

Student(s) **Mariam Yousf** **Grade** 8 **Town** Bridgeport

* Stanley Black & Decker Applied Technology Awards --- Middle School Finalist - Medallion
* Pepsico Engineering Awards --- 3rd Place- Engineering MS \$100 & trophy

Bridgeport John Winthrop School Srilakshmi Kongani

4005 Don't Quake, Choose the Right Shape!

Student(s) **Kyleen Negron** **Grade** 8 **Town** Bridgeport
Leah Brioso **Grade** 8 **Town** Bridgeport

* Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- Finalist - Physical Sciences Jr Team - CSF Medallions
* Urban School Challenge Awards with Connecticut Academy of Science & Engineering and OTIS --- Middle School Finalist - Medallion
* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF
* CT Architecture Foundation - The William M. Mack, AIA Awards --- \$250 Amazon Gift Card from the Connecticut Architecture Foundation, William M. Mack, AIA Award for Innovation in Building Performance.
* Jon Chapis Memorial Award --- Jon Chapis Spirit of Innovation Award - MS \$100
* Robert Francoeur Memorial Awards --- Creative or innovative project in engineering, computer science or mathematics by female students - \$100

Cheshire Cheshire Academy Breanna Craft

6013 A Tracking System.

Student(s) **Deanna Dixon** **Grade** 11 **Town** Cheshire

* 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
* Society of Women Engineers - Hartford Section --- Scientific Calculator

Cheshire Cheshire High School Julie Barker

6064 Chemical Clues: Predicting Cytochrome P-450 Inhibitors

Student(s) **Adwitha Gadhachanda** **Grade** 11 **Town** Cheshire

* Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion

Cheshire Cheshire High School Julie Barker

6058 The Design and Development of a Smart and Effective Multi-Device Airline Seatbelt Alert System for Preventing Turbulence-Related Injuries Using IoT Technology

Student(s) **Suchita Srinivasan** **Grade** 11 **Town** Cheshire

* Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- Finalist - Physical Sciences Senior High - CSF Medallion
* Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion
* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift card given by ONR
* Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2025 Invention Convention, May 3

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

Cheshire St. Bridget School Michelle Carroll

5003 Acids and Rates of Corrosion: Experiments of Acid Rain on Building Materials

Student(s) **Benedict Machado** **Grade 7** **Town** Hamden

* Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- 2nd Place- Physical Sciences 7th Grade Ind. - \$150 & trophy

Danbury Saint Gregory the Great School Christine Fahey

2012 1 Pollutant: 4 Filtering Methods

Student(s) **Dheer Bhavsar** **Grade 7** **Town** Danbury

* Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- 4th Place- Life Sciences 7th grade- trophy

* Aquarion Water Company --- 2nd. \$150.00 Cash - Grade 7-8 For Excellence in Water Quality or Environmental Management

* Schoepfer Award for Excellence in Local Aquatic Science --- For excellence in a local water quality study, \$100 cash

Danbury Saint Gregory the Great School Christine Fahey

5518 The Most Efficient Way to Solve a Rubik's Cube

Student(s) **Leonardo Lazzara** **Grade 8** **Town** Brookfield

* Connecticut Science Fair Association Mathematics Awards --- 3rd Place Middle School - \$100 and Trophy

Danbury Saint Gregory the Great School Christine Fahey

1003 Fertilizer vs Compost

Student(s) **Lucia Molisani** **Grade 7** **Town** Redding

Gemma Molisani **Grade 7** **Town** Redding

* Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion

* Ricoh Americas Corporation --- Certificate, \$25 gift card given by CSEF

Danbury Saint Gregory the Great School Christine Fahey

2001 Would You Like Plastic With That?

Student(s) **Rahil Shah** **Grade 7** **Town** Danbury

* Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- 1st Place- Life Sciences 7th grade- \$200 & trophy

* Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners

* Yale Peabody Museum --- In-person Behind the Scenes Tour of the Museum plus guardian. Winner must be >12 years old.

Danbury Saint Joseph School Kathleen Spina

2520 Crossed Up!

Student(s) **Brayden Crabbe** **Grade 8** **Town** Danbury

* Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Sciences 8th grade - CSF Medallion

* Wisner Chairman's Award --- \$500 cash & plaque

Danbury Saint Joseph School Kathleen Spina

2512 The Energy From Above

Student(s) **Jaden Scott** **Grade 8** **Town** Danbury

* EnergizeCT Alternative & Renewable Energy Awards --- 3rd Place Middle School - \$100 Cash and Trophy

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

Danbury Westside Middle School Academy Nancy Barlow

5528 The Benefit of A Coded Device To Water Plants Automatically

Student(s) **Mackenzie Cooper** **Grade 8** **Town** Danbury

- * Petit Family Foundation Women in Science & Engineering Awards --- 2nd Place- Middle School- \$150 / trophy
- * Urban School Challenge Awards with Connecticut Academy of Science & Engineering and OTIS --- 1st Place Middle School - \$200 and Trophy, Medallion
- * Infosys Foundation Computer Science Awards --- 2nd Place Middle School - \$150, 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
- * Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners
- * GENIUS Olympiad --- GENIUS Olympiad Competition for Highest Placing USC 8th grade Project

Danbury Westside Middle School Academy Nancy Barlow

4002 Increasing The Flight Distance of The Football by Changing its Characteristics

Student(s) **Brennen Denema** **Grade 8** **Town** Danbury
Sean Kennedy **Grade 8** **Town** Danbury
Mathias Sanchez **Grade 8** **Town** Danbury

- * Urban School Challenge Awards with Connecticut Academy of Science & Engineering and OTIS --- 4th Place Middle School - Trophy, Medallion
- * U.S. Air Force --- Certificate & USAF Merchandise Package

Danbury Westside Middle School Academy Nancy Barlow

4023 How Do Different RC Spoiler Shapes Affect Battery Discharge?

Student(s) **Sean O'Marra** **Grade 7** **Town** Danbury
Alius Santiago-Stra **Grade 7** **Town** Danbury

- * Urban School Challenge Awards with Connecticut Academy of Science & Engineering and OTIS --- Middle School Finalist - Medallion

Danbury Westside Middle School Academy Nancy Barlow

4028 The Effect of Different Salts in a Water Softener on Calcium in Drinking Water

Student(s) **Siddanth Ramakrishnan** **Grade 8** **Town** Danbury
Patrick Madden **Grade 8** **Town** Danbury
Thomas Smith **Grade 8** **Town** Danbury

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- 2nd Place- Physical Sciences MS Team- \$100 (split) & trophies
- * Urban School Challenge Awards with Connecticut Academy of Science & Engineering and OTIS --- 2nd Place Middle School - \$150 and Trophy, Medallion
- * 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

1005 Does heating or cooling a fruit/vegetable lower the amount of Brix?

Student(s) **Mohammad Rehan** **Grade 7** **Town** Danbury
Gowtham Vallinayagam **Grade 7** **Town** Danbury

- * Urban School Challenge Awards with Connecticut Academy of Science & Engineering and OTIS --- Middle School Finalist - Medallion
- * Institute of Food Technologists, Nutmeg Section --- \$100 award + invitation to Awards Night Dinner with guest

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

Danbury Westside Middle School Academy Nancy Barlow

4012 How does the Type and Brand of a Battery Affect how Much Voltage it Loses Over Time?

Student(s) **Logan Schneider** **Grade 7** **Town** Danbury
Daniel Sposato **Grade 7** **Town** Danbury

- * Urban School Challenge Awards with Connecticut Academy of Science & Engineering and OTIS --- 3rd Place Middle School - \$100 and Trophy, Medallion
- * EnergizeCT Future Sustainability Awards --- 3rd Place Middle School - \$100 Cash and Trophy
- * The Community Foundation for Greater Hew 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 7th grader- Project Oceanology's Ocean Camp - \$900

Danbury Westside Middle School Academy Nancy Barlow

4007 The Effects of Different Amounts of Phosphorus on the Growth of Algae Beads

Student(s) **Jazlyn Wallia** **Grade 8** **Town** Danbury
Maria Eduarda Silva **Grade 8** **Town** Danbury
Isis Brito Do Carmo **Grade 8** **Town** Danbury

- * Urban School Challenge Awards with Connecticut Academy of Science & Engineering and OTIS --- Middle School Finalist - Medallion

Danbury Wooster School Parvin Taraz

6077 CTRQnets & LQnets: Continuous Time Recurrent and Liquid Quantum Neural Networks

Student(s) **Alejandro Mayorga** **Grade 10** **Town** Danbury

- * Connecticut Science Fair Association Mathematics Awards --- 1st Place High School- \$300 and Plaque
- * Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion

Darien Darien High School David Lewis

3131 Association Between Food Insecurity and Mortality Outcomes Among Cancer Survivors in the United States

Student(s) **Lily Keehlwetter** **Grade 12** **Town** Darien

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion
- * RNP Regenerative Medicine Excellence Awards --- \$250 - Excellence in Translational Medicine

Darien Darien High School David Lewis

3090 SLE B cells have an increase in interferon alpha/beta signaling compared to DLE B cells

Student(s) **James Smith** **Grade 12** **Town** Darien

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion

East Lyme East Lyme High School Frederic Clark

3059 SleepWatcher

Student(s) **Sashrika Das** **Grade 9** **Town** East Lyme

- * Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion

Enfield Academy of Computer Science & Engineering Melissa Gates

6005 Does solar wind impact the production of northern lights?

Student(s) **Mickiyah Smith** **Grade 9** **Town** Manchester

- * Urban School Challenge Awards with Connecticut Academy of Science & Engineering and OTIS --- Senior High Finalist - Medallion
- * EnergizeCT Future Sustainability Awards --- High School Finalist - Medallion

[SchTown] [School] [Teacher]
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Enfield Chiaravalle Academy Tim Coleman

4014 Measuring Radiation in Household Appliances and Investigating Shielding Techniques

Student(s) **Dominic Disibio** **Grade 7** **Town** Tolland
Matthew Bielanski **Grade 7** **Town** Enfield
Cayden Counter **Grade 7** **Town** Springfield

* Pepsico Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion

Enfield Chiaravalle Academy Tim Coleman

1012 Whats the best hydroponic soil?

Student(s) **Makenzie Pappas** **Grade 7** **Town** Enfield
Lily Szwed **Grade 7** **Town** Longmeadow
Jake Swanson **Grade 7** **Town** West Springfield

* Alexion Biotechnology Awards --- 4th Place Biotechnology 7th grade - trophy

Enfield Chiaravalle Academy Tim Coleman

4008 1 Step Towards a Greener World

Student(s) **Megan Quinby** **Grade 8** **Town** Windsor
Nathaniel Kelly **Grade 8** **Town** Longmeadow

* EnergizeCT Alternative & Renewable Energy Awards --- 2nd Place Middle School - \$150 Cash and Trophy

* Constellation Energy --- 1st: \$100.00 Cash - Grade 7 - 8: For Excellence in clean renewable / sustainable energy

Enfield Chiaravalle Academy Tim Coleman

4019 Operating A Hydroponic System Using Rainwater

Student(s) **Zoha Shamsi** **Grade 8** **Town** Suffield
Antonina Borodii **Grade 8** **Town** Enfield

* Petit Family Foundation Women in Science & Engineering Awards --- 3rd Place- Middle Schools- \$100 / trophy

* Stanley Black & Decker Applied Technology Awards --- Middle School Finalist - Medallion

* EnergizeCT Future Sustainability Awards --- 1st Place Middle School - \$200 Cash and Trophy

Farmington Farmington High School Alexandra Raymunt

6075 Soil Nutrient Tester with Rotating Strip Holder for Multi-Day Analysis

Student(s) **Jiayi Liu** **Grade 12** **Town** Farmington

* Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion

Greenwich Brunswick School Dana Montanez

3528 Isolation of Regenerative Proteins in Echinoderms: A comparative analysis of amino acids sequences in Asterina sp. and P. miniata

Student(s) **Thomas Carney** **Grade 11** **Town** New Canaan
Pierce Crosby **Grade 11** **Town** Greenwich

* Pepsico Engineering Awards --- Finalist - Engineering High School - CSF Medallion

Greenwich Brunswick School Dana Montanez

3501 Optimization of Aptamer AS141: An Effort to Increase Binding Efficiency to Nucleolin, an Overexpressed Protein on Cancer Cells.

Student(s) **Jackson Cunningham** **Grade 11** **Town** Greenwich
Henry Mayerfield **Grade 11** **Town** Scarsdale

* Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- 3rd Place - Life Sciences Senior High Team - Plaque

* Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion

[SchTown] [School] [Teacher]
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Greenwich Brunswick School Dana Montanez

6502 Novel use of Beeswax as an Sustainable Medium to Improve the Efficiency and Scalability of Super-Hydrophobic Sponges in Cleaning up Oceanic Oil Spills

Student(s) **George Kapp** **Grade 11** **Town** Greenwich
Max Lanson **Grade 11** **Town** New Canaan

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- 1st Place- Physical Sciences Senior High Team- \$300 (split) & Plaques
- * Connecticut Association of Conservation and Inland Wetlands Commissions Environmental Sciences Awards --- 3rd Place HS- \$100, Plaque

Greenwich Brunswick School Dana Montanez

3537 The Damage of UV repellants and absorbents on Microfauna Found in and around Coral Reef Ecosystems

Student(s) **Jayden Montanez** **Grade 10** **Town** Greenwich
Callum Holl **Grade 10** **Town** Old Greenwich

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High Team - CSF Medallion

Greenwich Brunswick School Dana Montanez

6508 Utilizing Electrodeposition for Marine Coastline Protection: A Sustainable Solution to Combat Erosion

Student(s) **Lincoln O'Donohue** **Grade 11** **Town** Old Greenwich
Sean Mensi **Grade 11** **Town** Katonah

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- 3rd Place - Physical Sciences Senior High Team - Plaque

Greenwich Brunswick School Dana Montanez

3507 Creation of a Long-term, Biodegradable, Alkaline cube to locally offset the effects of ocean acidification in reef ecosystems.

Student(s) **Tyrus Ostrowski** **Grade 10** **Town** Port Chester
Nathaniel O'Connor **Grade 10** **Town** Chappaqua

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High Team - CSF Medallion

Greenwich Brunswick School Dana Montañez

3518 Identification and Isolation of the Disease-inhibiting Protein SCGB1D2 in Ungulates

Student(s) **Chris Pedlow** **Grade 10** **Town** Cos Cob
Gabe Levy **Grade 10** **Town** Greenwich

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High Team - CSF Medallion

Greenwich Central Middle School Andrew Bramante

2505 Development of a Thyme Oil-in-Hydromed Wearable Anklet for the Natural, Effective Repellant of Ticks

Student(s) **Clara Cahill** **Grade 8** **Town** Greenwich

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- 2nd Place- Life Sciences 8th grade- \$150 & trophy
- * Alexion Biotechnology Awards --- 1st Place Biotechnology 8th grade - \$200 & trophy
- * Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners
- * J.A. Augustine and H. Glista Awards --- \$100 for excellence in Life Sciences

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Greenwich Central Middle School Andrew Bramante

5513 Neutralization of Ocean Acidification, and Promotion of Additional Atmospheric CO₂ Sequestration, via a Melamine-PTFE-Mg(OH)₂ Floatable Sponge

Student(s) Tian-yi Chen **Grade 8** **Town** Greenwich

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- 5th Place- Physical Sciences 8th Grade Ind. - trophy
- * Stanley Black & Decker Applied Technology Awards --- Middle School Finalist - Medallion
- * Alexion Biotechnology Awards --- 2nd Place Biotechnology 8th grade - \$150 & trophy

Greenwich Central Middle School Andrew Bramante

5504 Highlighting the Prevalence of Microplastics at Tod's Point Through Waste Water and Ocean Currents Using Scanning Electron Microscopy Analysis

Student(s) Carter Henske **Grade 8** **Town** Greenwich

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- * Connecticut Association of Conservation and Inland Wetlands Commissions Environmental Sciences Awards --- MS Finalist - CSF Medallion
- * Southeastern New England Marine Educators (SENEME) --- \$100 award and membership for student and teacher in SENEME - 1st Place Junior

Greenwich Eastern Middle School Andrew Bramante

2516 Investigating the Effects of Natural Remedies on Pine Pollen Antigen Levels to Combat Allergies

Student(s) William Chen **Grade 8** **Town** Greenwich

- * Alexion Biotechnology Awards --- 4th Place Biotechnology 8th grade- trophy

Greenwich Eastern Middle School Andrew Bramante

2506 Fabrication of a Biodegradable, Nutrient-Rich, Orange Peel-Loaded Hydrogel for Thermally-Programmed Release of Water to Maintain Soil Moisture

Student(s) Rajsi Choudhary **Grade 8** **Town** Greenwich

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- 1st Place- Life Sciences 8th grade- \$200 & trophy
- * Connecticut Association of Conservation and Inland Wetlands Commissions Environmental Sciences Awards --- 1st Place MS - \$200, Trophy
- * Pepsico Engineering Awards --- 2nd Place- Engineering MS- \$150 & trophy
- * Quinnipiac University Scholarships --- \$30,000, 4 year scholarship (\$7500 per year) to Quinnipiac U. - MS Student in Engineering
- * Connecticut Science Teachers Association's Marty Tafel Student Research Award --- Life Sciences 8th Grade - \$500 and invite to CSTA Award Banquet
- * Alexion Biotechnology Awards --- 3rd Place Biotechnology 8th grade - \$100 & trophy
- * 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

5501 Evaluating the Toxicity of Eco-Friendly versus Conventional Laundry Detergent Water Runoff via Analysis of Eisenia Fetida Mortality Rates

Student(s) Zain Haque **Grade 8** **Town** Riverside

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- * Connecticut Association of Conservation and Inland Wetlands Commissions Environmental Sciences Awards --- MS Finalist - CSF Medallion

[SchTown] [School] [Teacher]
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Greenwich Eastern Middle School Andrew Bramante
5511 Field and Lawn Run-off Removal of Nitrates and Phosphates via an Iron & Calcium Fortified Biochar

Student(s) **Ellie Mao** **Grade 8** **Town** Riverside

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- 1st Place- Physical Sciences 8th Grade Ind.- \$200 & trophy
- * Stanley Black & Decker Applied Technology Awards --- Middle School Finalist - Medallion
- * Connecticut Science Teachers Association's Marty Tafel Student Research Award --- Physical Sciences 8th Grade - \$500 and invite to CSTA Award Banquet
- * Alexion Biotechnology Awards --- 5th Place Biotechnology 8th grade- trophy
- * 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
2521 Unraveling Weather-Pollen Interactions: Machine Learning for Allergy Forecasting

Student(s) **Siddharth Nimmagadda** **Grade 8** **Town** Greenwich

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- 3rd Place- Life Sciences 8th grade- \$100 & trophy
- * Infosys Foundation Computer Science Awards --- 3rd Place Middle School- \$100, Trophy

Greenwich Greenwich Academy Katie Hertzmark
1001 Microplastics in Oysters

Student(s) **Addison Garner** **Grade 7** **Town** Greenwich
Arabella Miller **Grade 7** **Town** Greenwich

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- 2nd Place- Life Sciences MS Team- \$100 split & trophies
- * Petit Family Foundation Women in Science & Engineering Awards --- 1st Place- Middle School \$200 / trophy
- * Connecticut Association of Conservation and Inland Wetlands Commissions Environmental Sciences Awards --- 3rd Place MS- \$100, Trophy

Greenwich Greenwich Catholic School Timothy Koppe
4015 MedAssist (Smart medicine storage)

Student(s) **Artem Perekhodko** **Grade 7** **Town** stamford
Jose Miguel Bowles **Grade 7** **Town** Greenwich
Ben Ballester **Grade 7** **Town** Stamford

- * Stanley Black & Decker Applied Technology Awards --- Middle School Finalist - Medallion
- * Zepke Awards --- \$120 - For the Best Use of Electronic Circuitry- Middle School
- * Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2025 Invention Convention, May 3

Greenwich Greenwich Country Day School Nathan Haag
6108 Effectiveness of a Smart Traffic Light Utilizing IoT Technologies for High School Campuses

Student(s) **Christian Suy Pineda** **Grade 11** **Town** Stamford

- * EnergizeCT Future Sustainability Awards --- High School Finalist - Medallion
- * MTU Aero Engines North America, Inc. --- MTU Aero Engines Mechanical Engineering Innovative Concept Award - \$250
- * J.A. Augustine and H. Glista Awards --- \$100 H. Glista Award for Physical Sciences

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

Greenwich Greenwich Country Day School Nathan Haag
6099 Optimizing Vertical Take-Off and Landing (VTOL) Aircraft Efficiency Through Propeller Design: Making Air Flight More Accessible, Affordable, and Sustainable

Student(s) Cooper Taylor **Grade** 11 **Town** Greenwich

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- 1st Place - Physical Sciences Senior High Individual - \$300 & Plaque
- * Pepsico Engineering Awards --- 3rd Place- Engineering Senior High- \$100 & 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
- * NASA EARTH System Science Award --- Certificate and \$25 gift card given by CSEF
- * American Institute of Aeronautics & Astronautics - Connecticut Section --- \$200 award, certificate
- * MTU Aero Engines North America, Inc. --- MTU Aero Engines Mechanical Engineering Applied Principles Award - \$250
- * Zepke Awards --- \$150 - For the Best Use of Electronic Circuitry- Senior High

Greenwich Greenwich High School Andrew Bramante
6097 Development of Hybrid Servo-Pneumatic Lower-Body Exoskeleton for use as a Mobility Assistance Device

Student(s) Isaac Bell **Grade** 11 **Town** Riverside

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- 5th Place- Physical Sciences Senior High Individual - Plaque
- * Stanley Black & Decker Applied Technology Awards --- Senior High Finalist - Medallion
- * Alexion Biotechnology Awards --- 3rd Place Biotechnology Senior High - \$100 & plaque

Greenwich Greenwich High School Andrew Bramante
3152 Real-Time Diagnosis and Alert of Computer Vision Syndrome, to Promote Healthy Screen-Time Habits

Student(s) Arnav Bhatia **Grade** 10 **Town** Old Greenwich

- * Infosys Foundation Computer Science Awards --- 1st Place High School - \$300, Plaque

Greenwich Greenwich High School Andrew Bramante
3006 Targeted Delivery of a Melittin Anti-inflammatory Peptide via a Eudragit-Coated Sporopollenin Exine Capsule, for Effective Treatment of Crohn's Disease

Student(s) Hannah Dacruz **Grade** 10 **Town** Greenwich

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion
- * Pepsico Engineering Awards --- 2nd Place- Engineering Senior High- \$200 & plaque
- * Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion
- * IEEE William R. Wessman Awards --- \$100 Honorable Mention

Greenwich Greenwich High School Andrew Bramante
3101 Restoration of Sleep Cycle and Activity Interruption of Alzheimer's Rivastigmine Treatment with the Addition of Labetalol

Student(s) Rachel Goldenberg **Grade** 10 **Town** Old Greenwich

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion

Greenwich Greenwich High School Andrew Bramante
6020 Facilitated Ethylene Absorption and Freshness Preservation via All-Natural Sodium Chloride and

Student(s) Nishant Jain **Grade** 10 **Town** Riverside

- * Pepsico Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Institute of Food Technologists, Nutmeg Section --- \$150 award + invitation to Awards Night Dinner with guest

[SchTown]	[School]	[Teacher]	[Proj#]	[Project Title]	Student(s)	Grade	Town
Greenwich	Greenwich High School	Andrew Bramante	6051	Development of a Novel Deep Reinforcement Learning Algorithm for Decentralized Real-Time Control of Autonomous Drones with Hardware-Independent Compatibility	Henry Jin	11	Greenwich
<ul style="list-style-type: none"> * Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion * Pepsico Engineering Awards --- Finalist - Engineering High School - CSF Medallion 							
Greenwich	Greenwich High School	Andrew Bramante	6041	Design of a Biometric Trap for Spotted Lanternflies, Using Scent-Profiles of Ailanthus altissima	Rex Lu	11	Greenwich
<ul style="list-style-type: none"> * Connecticut Association of Conservation and Inland Wetlands Commissions Environmental Sciences Awards --- HS Finalist - CSF Medallion 							
Greenwich	Greenwich High School	Andrew Bramante	3083	Fabrication of an Antibiotic Gelatin Hydrogel Delivery Mechanism for Atopic or Injectable Release of mRNA Vaccines	Neil Pendkar	10	Old Greenwich
<ul style="list-style-type: none"> * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion * Alexion Biotechnology Awards --- 4th Place Biotechnology Senior High - plaque 							
Greenwich	Greenwich High School	Andrew Bramante	6009	Consideration of Location-specific Weather and Topographic Datasets to Model Efficient Deployment of Forest Fire Flame Retardants	Iri Pulepu	9	Old Greenwich
<ul style="list-style-type: none"> * Connecticut Science Fair Association Mathematics Awards --- High School Finalist - Medallion * Maplesoft Awards for Applied Mathematics and Modeling --- Maple software, gift packs, & T-shirt - For Excellence in Mathematics 							
Greenwich	Greenwich High School	Andrew Bramante	3146	Leveraging of Neural Network Design to Create High-Accuracy, Low-Latency Detection of Real-time	Ryan Wadhwa	11	Riverside
<ul style="list-style-type: none"> * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion * Infosys Foundation Computer Science Awards --- 3rd Place High School- \$100, Plaque 							
Greenwich	Greenwich High School	Andrew Bramante	3129	Lipid-Based Codelivery of Doxorubicin and siRNA PD-L1, as a Multi-function Chemo-immunotherapy, Selective to PDAC via its MUC1 Overexpression	Lula Wang	10	Old Greenwich
<ul style="list-style-type: none"> * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion * Pepsico Engineering Awards --- 1st Place- Engineering Senior High- \$300 & plaque and trip to ISEF * Alexion Biotechnology Awards --- 1st Place Biotechnology Senior High - \$300 & plaque 							
Greenwich	Greenwich High School	Andrew Bramante	3011	A Novel Multi-Modal ML Approach for Early Detection of Alzheimer's Disease Using Clinical, Genetic, and MRI Modalities	Keen-Yin Woo	11	Riverside
<ul style="list-style-type: none"> * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- 3rd Place- Life Sciences Senior High- \$100 & Plaque * Pfizer Computational Biology and Bioinformatics Awards --- 2nd Place High School - \$200, Plaque * Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion 							

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

Greenwich Sacred Heart Greenwich Mary Musolino

4009 Advanced Water Purification using Activated Charcoal and Biochar

Student(s) **Eliana Antenucci** **Grade 8** **Town** SCARSDALE
Mackenzie Malouin **Grade 8** **Town** Rye

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- Finalist - Physical Sciences Jr Team - CSF Medallions
- * Connecticut Association of Conservation and Inland Wetlands Commissions Environmental Sciences Awards --- MS Finalist - CSF Medallion

Greenwich Sacred Heart Greenwich Mary Musolino

2509 Testing the Effectiveness of Green and Black Tea as a Plant Nutrient

Student(s) **Paige Creegan** **Grade 8** **Town** Briarcliff Manor

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- 4th Place- Life Sciences 8th grade- trophy
- * Association for Women Geoscientists --- Certificate & \$25 gift card given by CSEF

Greenwich Sacred Heart Greenwich Mary Musolino

4001 Testing the Strength and Biodegradability of Watermelon Rind and Banana Peel-Based Bioplastics

Student(s) **Stephanie Galvez** **Grade 8** **Town** Greenwich
Bonnie Ukperaj **Grade 8** **Town** Stamford
Mia Cartagena **Grade 8** **Town** Stamford

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- 1st Place- Physical Sciences MS Team- \$200 (split) & trophies
- * Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners

Greenwich Sacred Heart Greenwich Mary Musolino

2514 Bamboo Bio-Plastic

Student(s) **Olivia Hastings** **Grade 8** **Town** Greenwich

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Sciences 8th grade - CSF Medallion
- * Ricoh Americas Corporation --- Certificate, \$25 gift card given by CSEF

Greenwich Sacred Heart Greenwich Mary Musolino

1029 Creating and Testing Mango and Pomegranate Peel-Based Bioplastics as Food Packaging and a Plastic Bag Substitute

Student(s) **Mary McBreen** **Grade 8** **Town** Greenwich
Abby Knox **Grade 8** **Town** Greenwich

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Sciences Middle School Team - CSF Medallion

Greenwich Sacred Heart Greenwich Joyce Reed

3001 The Effect of Gender, Age, and Costoclavicular Symmetry or Asymmetry on the Costoclavicular Interval for Neurogenic Thoracic Outlet Syndrome (nTOS) Patients

Student(s) **Ann Slocum** **Grade 11** **Town** Pleasantville

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion
- * Pfizer Computational Biology and Bioinformatics Awards --- Senior High Finalist - Medallion

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

Greenwich Sacred Heart Greenwich Mary Musolino Musolino

4020 Using Clay Flocculation to Reduce Harmful Algae Blooms in a Body of Water

Student(s) **Vivienne Vanderwilt** **Grade 8** **Town** Greenwich
Nora Mulcahy **Grade 8** **Town** RYE
Ariel Almonacy **Grade 8** **Town** Greenwich

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- Finalist - Physical Sciences Jr Team - CSF Medallions
- * Connecticut Association of Conservation and Inland Wetlands Commissions Environmental Sciences Awards --- MS Finalist - CSF Medallion
- * Yale Peabody Museum --- In-person Behind the Scenes Tour of the Museum plus guardian. Winner must be >12 years old.

Greenwich Western Middle School Andrew Bramante

5502 Integration of Photoluminescent Manganese-doped ZnS Nanocrystals

Student(s) **Alexandra Rothstein** **Grade 8** **Town** Greenwich

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- 3rd Place- Physical Sciences 8th Grade Ind, - \$100 & trophy
- * Stanley Black & Decker Applied Technology Awards --- 2nd Place Middle School - \$150 and Plaque, Medallion
- * EnergizeCT Alternative & Renewable Energy Awards --- 1st Place Middle School - \$200 Cash and Trophy
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion
- * Kiev Family Awards --- 2nd place - \$150 - For Excellence in Engineering Middle School

Hamden Hamden Hall Country Day School Sarrah Gavin

3123 The Association Between Treatment Choice and Breast Cancer Survival

Student(s) **Anna Aslan** **Grade 9** **Town** Hamden

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion

Hamden Hamden Hall Country Day School Lucia Jilaveanu

3140 Caveolin-1 as a Biomarker and Potential Mediator of Melanoma Brain Metastasis

Student(s) **Andrei Balas** **Grade 11** **Town** Cheshire

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion
- * Pfizer Computational Biology and Bioinformatics Awards --- Senior High Finalist - Medallion
- * Regeneron Biomedical Science Award --- Certificate & \$375.00 cash

Hamden Hamden Hall Country Day School John Scaife

3531 Using Higuchi's Fractal Dimension and Kernel-Based Learning to Monitor Tremor Severity and Gait Dynamics in Parkinson's Disease

Student(s) **Helena Chaine** **Grade 12** **Town** Orange
Linda Chen **Grade 11** **Town** Woodbridge
Leon Jiang **Grade 11** **Town** New Haven

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High Team - CSF Medallion

Hamden Hamden Hall Country Day School Paulomi Aldo

5007 How does dimple patterns affect a golf balls flight?

Student(s) **David Esposito** **Grade 7** **Town** North Haven

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- Finalist - Physical Sciences 7th Grade - CSF Medallion
- * Talcott Mountain Science Center & Academy --- TMSC Founder's Award - Middle School Physical Science - Scholarship to one Summer or Saturday Program at TMSC - Value \$650

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

Hamden Hamden Hall Country Day School Robert Link

3134 Development and experimentation of an AI algorithm alongside a Near-Infrared LED device to assist in venipuncture.

Student(s) **Neev Makin** **Grade** 11 **Town** Hamden

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion
- * Stanley Black & Decker Applied Technology Awards --- Senior High Finalist - Medallion
- * Lunch with a Patent Attorney --- Lunch with a Patent Attorney
- * Jon Stone Memorial Award --- Jon Stone Award for Innovative Engineering- \$100

Hamden Hamden Hall Country Day School Daniel Kemp

3065 The role of glucose transporter 4 in cardiac virus infection

Student(s) **Yidi Peng** **Grade** 11 **Town** Woodbridge

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion

Hamden Hamden Hall Country Day School Jacob Marchesi

6506 Energy Absorption Efficiency of Various Crumple Zone Materials in Pendulum Impact Tests on Model Cars

Student(s) **Frida Ramirez Moreno** **Grade** 10 **Town** Meriden

Barbara Ramirez Moreno **Grade** 11 **Town** Meriden

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- Finalist - Physical Sciences Senior Team - CSF Medallion
- * Connecticut Association of Physics Teachers --- \$100 Senior project

Hamden Hamden Hall Country Day School Yang Yang-Hartwich

3038 Enhancing Ovarian Cancer Treatment in Chemotherapy Resistant BPRN-101 & BPRN-129 Cell Lines Utilizing Exosomal Chemotherapy Delivery

Student(s) **Sophia Vash** **Grade** 11 **Town** Fairfield

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- 4th Place- Life Sciences Senior High- Plaque

Hamden Hamden Hall Country Day School Paulomi Aldo

2008 How do levels of U.V. light affect bacterial growth or mutations?

Student(s) **Matthew Wallis** **Grade** 7 **Town** Hamden

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Sciences 7th grade - CSF Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion

Hamden Hamden Hall Country Day School Paulomi Aldo

1015 Curing E.Coli with antibiotic vs. Human Impact

Student(s) **Bella Zhou** **Grade** 8 **Town** Hamden, New Haven

Gabriela Pereira **Grade** 7 **Town** Hamden

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- 3rd Place- Life Sciences MS Team- trophy
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion

Kent Kent School ZIHAO DU

6100 Three-Support Lower-Limb Exoskeleton Device Integrating Multifunctionality and Feedback Mechanisms

Student(s) **OliviaLu Feng** **Grade** 11 **Town** Guangzhou, China

- * Pepsico Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Quinnipiac University Scholarships --- \$30,000, 4 year scholarship (\$7500 per year) to Quinnipiac U. - HS Student in Engineering
- * IEEE William R. Wessman Awards --- \$250 Honors Award -Senior
- * Zepke Awards --- \$150 - For the Best Use of Electronic Circuitry- Senior High

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

Lakeville The Hotchkiss School Richard Kirby

3039 Meta-analysis and Design of a Panel of Biomarkers Associated with Schizophrenia for the Development of a Comprehensive Diagnostic Test for Schizophrenia

Student(s) **Sia Reddy** **Grade** 11 **Town** Avon

* Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion

Manchester Manchester High School Wendy Turek

3073 The Effect of Nitrogen Enrichment on the Arousal of *Astrangia Pocolata* from Quiescence

Student(s) **Bailey Downey** **Grade** 12 **Town** Manchester

* Urban School Challenge Awards with Connecticut Academy of Science & Engineering and OTIS --- Senior High Finalist - Medallion

* The Community Foundation for Greater New Haven Ecology, Environmental, and Alternative Energy Research Prize --- Award for top environmental protection project from an urban public school

Manchester Manchester High School Wendy Turek-Hernandez

3153 Flood Wave Reduction Due to Artificial Reefs

Student(s) **Anas Hales** **Grade** 12 **Town** Manchester

* Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion

* Urban School Challenge Awards with Connecticut Academy of Science & Engineering and OTIS --- 4th Place High School - Plaque, Medallion

* National Oceanic and Atmospheric Administration --- Certificate and \$25 gift card given by CSEFF

Manchester Manchester High School Wendy Turek-Hernandez

3124 The Biodegradation of UV Treated Polypropylene and Polyethylene Terephthalate by *Aspergillus Terreus*

Student(s) **Mia Hernandez** **Grade** 12 **Town** Manchester

* Urban School Challenge Awards with Connecticut Academy of Science & Engineering and OTIS --- Senior High Finalist - Medallion

Manchester Saint James School Brianna Hawkins

5520 Why is wool warmer than most fabric?

Student(s) **Saanvi Sethi** **Grade** 8 **Town** Manchester

* Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- 4th Place- Physical Sciences 8th Grade Ind. - trophy

* Arthur & Ruth Mensing Awards --- Mensing Award Excellence in the High School Physical Sciences - \$500

* NYUC Pony Club Equine or Animal Science Award --- \$100 Cash Award for excellence in equine studies

Milford Platt Technical High School Sara Bruno

6516 Green Growth Academy

Student(s) **Danyalis Perez-Cumba** **Grade** 11 **Town** North Haven

Maureen Freire-Trejo **Grade** 11 **Town** Bridgeport

Karen Plazas **Grade** 11 **Town** Bridgeport

* EnergizeCT Technical High School Science & Technology Awards --- Technical High School Finalist - medallion

* Connecticut Association of Conservation and Inland Wetlands Commissions Environmental Sciences Awards --- HS Finalist - CSF Medallion

* CT Architecture Foundation - The William M. Mack, AIA Awards --- \$250 Amazon Gift Ccard from the Connecticut Architecture Foundation, William M. Mack, AIA Award for Innovation in Building Sustainability.

* Alumni Botany Awards --- Alumni High School Botany Award- \$150 Cash

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

Montville Puryear Homeschool Mary Puryear

5008 How to Use Windows to Get the Optimal Air Flow in a Room

Student(s) John Puryear **Grade** 7 **Town** Uncasville

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- 5th Place- Physical Sciences 7th Grade Individual - trophy
- * EnergizeCT Future Sustainability Awards --- 2nd Place Middle School - \$150 Cash and Trophy

New Haven Engineering and Science University Magnet School Alyssa Anderson

3519 A Comprehensive Method to Combat Antibiotic Resistance in Soil Microbes: Integration of CRISPR-Cas 9 Gene Editing and Nanoparticles for Enhanced Biodegradation of Pollutants

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

Saket Aliminate **Grade** 11 **Town** Milford

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- 2nd Place- Life Sciences Senior High Team- \$200 (split) & Plaque

New Haven Engineering and Science University Magnet School Alyssa Anderson

3008 Evaluating LYVE1 Gene Expression in Breast Cancer Using qPCR Analysis and Comparing with Hyperparameter-Tuned Models for LYVE1 Gene Expression in Pancreatic Cancer

Student(s) Nivrith Ananth Iyer **Grade** 11 **Town** West Haven

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion
- * Urban School Challenge Awards with Connecticut Academy of Science & Engineering and OTIS --- 3rd Place High School - \$ 100 and Plaque, Medallion
- * Society for In Vitro Biology --- Certificate and \$25 gift card given by CSEF

New Haven Engineering and Science University Magnet School Paula Matei-Grysiak

3003 Implementation and Validation of a Novel Machine-Learning-Based Mobile Gyrocardiography System for Arrhythmia Detection

Student(s) Ethan Joseph **Grade** 10 **Town** West Haven

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion
- * Pfizer Computational Biology and Bioinformatics Awards --- Senior High Finalist - Medallion
- * Urban School Challenge Awards with Connecticut Academy of Science & Engineering and OTIS --- 1st Place High School - \$300 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
- * The Community Foundation for Greater Hew Haven's Milton Fisher Awards for Innovation and Creativity --- For Excellence in Creativity and Innovation by a High School student, \$100 cash

New Haven Engineering and Science University Magnet School Alyssa Anderson

5512 Investigating the Chemical Properties and Efficiency of Homeade Batteries: A Focus on Voltage, Energy and Chemical Reactions

Student(s) Anabelle Silverman **Grade** 8 **Town** New Haven

- * Urban School Challenge Awards with Connecticut Academy of Science & Engineering and OTIS --- Middle School Finalist - Medallion
- * Society of Women Engineers - Hartford Section --- Scientific Calculator
- * MIT Club of Hartford K-12 Initiative --- For excellence in science & technology of energy related research, middle school, \$100 cash award
- * Freeman Family Excellence in Chemistry Awards --- \$100 For Excellence in Chemistry or Chemical Engineering - Middle School
- * Demos R Us Awards --- \$200 Cash Award- Clear Execution of Research- 8th Grade

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

New Haven Foote School Elliot Dickson

2016 Studying Muscle Memory in Planaria to Understand Neurodegenerative Diseases

Student(s) **Jessica Park** **Grade 7** **Town** New Haven

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- 5rd Place- Life Sciences 7th grade- trophy
- * Alexion Biotechnology Awards --- 1st Place Biotechnology 7th grade - \$200 & trophy
- * Talcott Mountain Science Center & Academy --- TMSC Founder's Award - Middle School Life Science - Scholarship to one Summer or Saturday Program at TMSC - Value \$650

New Haven Sound School Chuck Mulligan

3042 Evaluation of Potential Filtration Enhancements Applied to Municipal Water: Assessing Potential Ways to Reduce Enterococcus Bacteria Levels Discharging From Wastewater Facilities

Student(s) **Britney Xochipiltecatl Cuahtepitz** **Grade 12** **Town** New Haven

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion
- * Petit Family Foundation Women in Science & Engineering Awards --- 3rd Place- High School- \$100 / plaque
- * Stockholm Junior Water Prize --- Certificate, \$25 gift card by CSEF, possible advance to further competition

New Haven Wilbur Cross High School Michael Sang

6070 Exploring the Convergence of Juggler Sequences

Student(s) **Julian Theodore** **Grade 11** **Town** New Haven

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Connecticut Science Fair Association Mathematics Awards --- 3rd Place High School - \$100 and Plaque
- * Urban School Challenge Awards with Connecticut Academy of Science & Engineering and OTIS --- 2nd Place High School - \$200 and Plaque, Medallion
- * University of Hartford Scholarships --- University of Hartford Scholarship - For Excellence in Engineering or Technology, Grade 11 only - \$30,000 (\$7500/year)

New Haven Worthington Hooker School Douglas Jones

1020 Does Plant Orientation Affect Growth

Student(s) **Sieun Yoo** **Grade 8** **Town** New Haven

Clarissa Castilio **Grade 8** **Town** New Haven

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Sciences Middle School Team - CSF Medallion
- * Urban School Challenge Awards with Connecticut Academy of Science & Engineering and OTIS --- 5th Place Middle School - Trophy, Medallion
- * Yale Peabody Museum --- In-person Behind the Scenes Tour of the Museum plus guardian. Winner must be >12 years old.

North Haven Slate School Jennifer Staple-Clark

2004 Petri Dish Experiments Exploring Bacteria Growth in Soil Samples With and Without Nitrogen-Fixing Bacteria

Student(s) **Pierson Clark** **Grade 7** **Town** North Haven

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- 2nd Place- Life Sciences 7th grade- \$150 & trophy
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion

Norwich Norwich Technical High School Aleatha Pelloni

3515 eDNA Testing for Invasive Species

Student(s) **Jarelis Acevedo** **Grade 11** **Town** Norwich

Nora Van Haitsma **Grade 11** **Town** Norwich

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High Team - CSF Medallion
- * EnergizeCT Technical High School Science & Technology Awards --- 2nd Place- Technical High School , \$200, Plaque
- * Connecticut Association of Conservation and Inland Wetlands Commissions Environmental Sciences Awards --- HS Finalist - CSF Medallion

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

Norwich Norwich Technical High School Aleatha Pelloni

3012 Proving Microplastics Transfer from Water to Living Organisms Through Vegetation

Student(s) Solibella Davis **Grade** 11 **Town** New London

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion
- * EnergizeCT Technical High School Science & Technology Awards --- 1st Place- Technical High School, \$300, Plaque & Stipend to Compete at GENIUS Olympiad
- * Connecticut Association of Conservation and Inland Wetlands Commissions Environmental Sciences Awards --- HS Finalist - CSF Medallion
- * Stockholm Junior Water Prize --- Certificate, \$25 gift card by CSEF, possible advance to further competition
- * University of Hartford Scholarships --- University of Hartford Scholarship - For Excellence in Science or mathematics, Grade 11 only - \$30,000 (\$7,500/year)
- * RNP Regenerative Medicine Excellence Awards --- \$250 - Excellence in Translational Medicine
- * GENIUS Olympiad --- GENIUS Olympiad Competition for 1st Place Technical High School

Norwich Norwich Technical High School Aleatha Pelloni

3509 Impact of Sunscreen Contaminants on Plutes Growth and Development

Student(s) Addison Hackett **Grade** 11 **Town** Willimantic

Kaitlyn Tortorich **Grade** 11 **Town** Windham

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High Team - CSF Medallion
- * EnergizeCT Technical High School Science & Technology Awards --- 3rd Place- Technical High School , \$100, Plaque
- * Society for In Vitro Biology --- Certificate and \$25 gift card given by CSEF
- * University of New Haven Scholarship Awards --- University of New Haven 4 year scholarship - \$104,000 (\$26,000 per year) for exemplary 11th grade project
- * University of New Haven Scholarship Awards --- University of New Haven 4 year scholarship - \$104,000 (\$26,000 per year) for exemplary 11th grade project

Redding CT STEM Lindsay McCarthy

3027 Determining the Correlation between Physician's Perspective on Cannabis Legalization and Physician Comfort Discussing Cannabis Use with Youth Patients

Student(s) Janet Fan **Grade** 11 **Town** Woodbridge

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion

Redding CT STEM Lindsay McCarthy

3057 Evaluating the Antifungal Potential of Citronella and Cassia Essential Oils at Different Concentrations Against the Mycelia Growth of Bipolaris sorokiniana

Student(s) Elena Huber **Grade** 10 **Town** Woodbridge

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion
- * U.S. Metric Association --- Certificate & \$25 gift card given by CSEF
- * RNP Regenerative Medicine Excellence Awards --- \$250 - Excellence in Translational Medicine

Redding CT STEM Lindsay McCarthy

6106 Developing a Machine-Learning Driven Wearable Vest for Early Diagnosis and Management of Chronic Obstructive Pulmonary Disease through Vitals Analysis

Student(s) Aryan Shrivastav **Grade** 10 **Town** Orange

- * Pfizer Computational Biology and Bioinformatics Awards --- Senior High Finalist - Medallion

Redding Joel Barlow High School Paul Testa

3122 AI Prediction: Randomized Clinical Trial Enrollment

Student(s) Arianna Pereira **Grade** 11 **Town** easton

- * Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion

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

Redding Joel Barlow High School Paul Testa

6059 Evaluating Market Efficiency Through Deep Learning: A Performative Analysis of LSTM Neural Networks, Actor-Critic Reinforcement Learning Models, and Technical Indicators

Student(s) Brian Weiss **Grade** 11 **Town** Redding

- * Connecticut Science Fair Association Mathematics Awards --- 2nd Place High School- \$200 and Plaque
- * Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion

Salisbury Indian Mountain School Sonya Friel

1011 Microneedle constructs for cutaneous slow-release insulin and GLP-1 in diabetes mellitus

Student(s) Tianyu Xie **Grade** 8 **Town** Lakeville

Yiheng Zhao **Grade** 8 **Town** Lakeville

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Sciences Middle School Team - CSF Medallion
- * Stanley Black & Decker Applied Technology Awards --- 3rd Place Middle School - \$100 and Plaque, Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion

South Windsor South Windsor High School Suma Basavarappa

3144 SiExo: Modular Bayesian-Optimized Dual-Ligand TfR/RVG Exosomes for siRNA Delivery and BBB Transcytosis in CNS Neurotherapeutics

Student(s) Samarth Basanth **Grade** 11 **Town** South Windsor

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion
- * Pfizer Computational Biology and Bioinformatics Awards --- Senior High Finalist - Medallion
- * U.S. Metric Association --- Certificate & \$25 gift card given by CSEF

South Windsor South Windsor High School Sivagami Chockalingam

3067 Targeting Telomerase Activity in Malignant Cancer Cells: RNA Interference and Enzymatic Inhibition to Induce Growth Arrest, Senescence, and Block Metastatic Dissemination

Student(s) Srinidhi Karthik **Grade** 11 **Town** South Windsor

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- 1st Place- Life Sciences Senior High- \$300 & Plaque
- * 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
- * University of New Haven Scholarship Awards --- University of New Haven 4 year scholarship - \$104,000 (\$26,000 per year) for exemplary 11th grade project

South Windsor South Windsor High School Danel Eitel

6514 Waste to Watts

Student(s) Rishi Murali **Grade** 10 **Town** South Windsor

Gavin Lippi **Grade** 10 **Town** South Windsor

Prahaladhan Rajarajan **Grade** 10 **Town** south windsor

- * EnergizeCT Alternative & Renewable Energy Awards --- 1st Place High School - \$300 Cash and Plaque
- * EnergizeCT Future Sustainability Awards --- 3rd Place High School - \$100 Cash and Plaque
- * Constellation Energy --- 2nd: \$100.00 Cash - Grade 9 - 12: For Excellence in clean renewable / sustainable energy

South Windsor South Windsor High School Danel Eitel

6094 In-Situ Acetylene-Based Nitrogen Inhibitor To Reduce Soil-N loss in Cereal Crops

Student(s) Sanjay Rajan **Grade** 10 **Town** South Windsor

- * Connecticut Association of Conservation and Inland Wetlands Commissions Environmental Sciences Awards --- 2nd Place HS- \$200, Plaque

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

South Windsor South Windsor High School April Davis

6519 PFOAway: An Eco-Friendly, Affordable PFOA Absorbent & Degradation Tabletop Filtration Product

Student(s) **Akhil Shunmugaraja** **Grade** 10 **Town** South Windsor
Neelesh Sathish **Grade** 10 **Town** South Windsor

- * EnergizeCT Future Sustainability Awards --- 1st Place High School - \$300, Plaque & \$700 Stipend to Compete at GENIUS Olympiad
- * GENIUS Olympiad --- GENIUS Olympiad Competition for 1st Place HS Future Sustainability

South Windsor South Windsor High School Danel Eitel

6501 Watt Box

Student(s) **Mason Smith** **Grade** 10 **Town** South Windsor
Prasun Modi **Grade** 10 **Town** South Windsor

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- 2nd Place- Physical Sciences Senior High Team- \$200 (split) & Plaques
- * EnergizeCT Future Sustainability Awards --- High School Finalist - Medallion
- * Westinghouse Electric Company/New England Chapter of North American Young Generation in Nuclear --- 1st place, Excellence in Energy Research, \$100 cash award

South Windsor South Windsor High School Danel Eitel

6047 OatNET: Novel Neural Network architecture & mathematical model for reducing Dense Layer computational complexity via ternary weight decomposition & rank-1 magnitude approximation.

Student(s) **Karthik Srikumar** **Grade** 10 **Town** South Windsor

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- 2nd Place- Physical Sciences Senior High Individual - \$200 & Plaque
- * Connecticut Science Fair Association Mathematics Awards --- High School Finalist - Medallion
- * Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion
- * Quinnipiac University Scholarships --- \$30,000, 4 year scholarship (\$7500 per year) to Quinnipiac U. - HS Student in Computing
- * Maplesoft Awards for Applied Mathematics and Modeling --- Maple software, , gift packs, & T-shirt - For Excellence in Mathematics

Southington Southington High School Ismail Agirman

3060 Mitigation of Cyclohexane Concentrations in Drinking Water using photosynthetic molecule Chlorophyll

Student(s) **Esra Agirman** **Grade** 9 **Town** Southington

- * Connecticut Association of Conservation and Inland Wetlands Commissions Environmental Sciences Awards --- 1st Place HS- \$300, Plaque and Stipend to Compete at GENIUS Olympiad
- * U.S. Metric Association --- Certificate & \$25 gift card given by CSEF
- * GENIUS Olympiad --- GENIUS Olympiad Competition for 1st Place HS Environmental Project

Stamford Bi-Cultural Hebrew Academy Chris Graseck

2009 The Effects of Dish Soap on Plants

Student(s) **Caleb Moreen** **Grade** 7 **Town** Stamford

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- 3rd Place- Life Sciences 7th grade- \$100 & trophy
- * Connecticut Association of Conservation and Inland Wetlands Commissions Environmental Sciences Awards --- MS Finalist - CSF Medallion

Stamford King School Victoria Schulman

6057 LungSCOPE: A Multimodal Machine Learning-Based Framework for Overall Survival Prediction in Non-Small Cell Lung Cancer

Student(s) **Parker Hayashi** **Grade** 12 **Town** Riverside

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- 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
- * Pepsico Engineering Awards --- Finalist - Engineering High School - CSF Medallion

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

Stamford King School Victoria Schulman

6001 Making a Real-Time Water Quality Monitor

Student(s) **Sowa Laryea-Adjei** **Grade 11** **Town** Stamford

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

Stamford King School Victoria Schulman

6104 A Voice Controlled Robotic Arm for Assisting Complex Surgical Tasks

Student(s) **Dillon Maltese** **Grade 11** **Town** Greenwich

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- 3rd Place- Physical Sciences Senior High Individual - \$100 & Plaque
- * Stanley Black & Decker Applied Technology Awards --- 1st Place High School - \$300 and Plaque, Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift card given by ONR

Stamford King School Victoria Schulman

3069 Understanding the effect of nutrient additives on the growth and performance of the seaweeds *Saccharina latissima* and *Gracilaria mammillaris*

Student(s) **Lucia Vivanco** **Grade 11** **Town** Stamford

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion
- * Project Oceanology --- In1dividual - 1 Marine Science Experience Camp spot + T-Shirt & cap (swag), First Place 8, 9, 10 grader valued at \$1095

Stamford King School Victoria Schulman

3026 Treating APOE4-induced TGFβ-mediated Perivascular Fibrogenic

Student(s) **Leon Wang** **Grade 11** **Town** Stamford

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion

Stamford Laurel Springs School Vera Ulanovskaya

6046 Research on Autoimmune Disease Spectrometer (RAD-Spec): A Machine Learning-Based Application for Improving Accessibility to Autoimmune Research

Student(s) **Victoria Makarov** **Grade 11** **Town** Stamford

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion
- * Robert Francoeur Memorial Awards --- Creative or innovative project in engineering, computer science or mathematics by female students - \$100

Stonington St. Michael School Anna Grossomanides

5009 Acid Rain: how different materials dissolve in different vinegars

Student(s) **Lucy Anderson** **Grade 7** **Town** Pawcatuck

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- 3rd Place- Physical Sciences 7th Grade Ind. - \$100 & trophy

Trumbull Trumbull Agriscience & Biotechnology Center Kevin Boken

6503 Plant infused hydrogel bandage for improved wound care.

Student(s) **Kate-Nicole Camotes** **Grade 11** **Town** Milford
Abril Garcia-Martinez **Grade 11** **Town** Bridgeport
Leenoy Sahar **Grade 11** **Town** Trumbull

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- Finalist - Physical Sciences Senior Team - CSF Medallion

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

Trumbull Trumbull Agriscience & Biotechnology Center Kevin Boken

3502 Symbiotic Synthesis: Exploring the Co-Culture of Spirulina and Bacillus subtilis for Enhanced CO₂ Absorption

Student(s) Autumn Settembre **Grade** 9 **Town** Trumbull

Johnathon Lin **Grade** 9 **Town** Bridgeport

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High Team - CSF Medallion
- * Connecticut Association of Conservation and Inland Wetlands Commissions Environmental Sciences Awards --- HS Finalist - CSF Medallion

Wallingford Choate Rosemary Hall Dan Ismailescu

6078 Largest Area of an Empty Rectangle Amongst Points in a Unit Square

Student(s) Benjamin Cha **Grade** 10 **Town** Tenafly

- * Connecticut Science Fair Association Mathematics Awards --- High School Finalist - Medallion

Wallingford Choate Rosemary Hall Ben Small

3155 Development of an AI-Enabled Pressure-Sensing Mat System and Validation of Novel Gait Biomarkers Through Multi-Sensor Fusion for Early Detection of Neurodegenerative Disorders

Student(s) Rhea Doshi **Grade** 10 **Town** Farmington

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion
- * Pfizer Computational Biology and Bioinformatics Awards --- 3rd Place High School - \$100, Plaque
- * Alexion Biotechnology Awards --- 5th Place Biotechnology Senior High - plaque
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift card given by ONR

Wallingford Choate Rosemary Hall Will Morris

3086 RNA Editing Strategies for Correcting USH2A Mutations Associated with Usher Syndrome

Student(s) Rachel Fan **Grade** 10 **Town** Wallingford

- * Pepsico Engineering Awards --- Finalist - Engineering High School - CSF Medallion

Wallingford Choate Rosemary Hall Shiyao Gu

6086 A Novel Fishbone-Shaped Smart Glove for Stroke Patients

Student(s) Jingyan Liu **Grade** 9 **Town** Shanghai

- * Petit Family Foundation Women in Science & Engineering Awards --- 2nd Place High School \$200 / plaque
- * Stanley Black & Decker Applied Technology Awards --- 3rd Place High School - \$ 100 and Plaque, Medallion
- * Jon Chapitis Memorial Award --- Jon Chapitis Spirit of Innovation Award - HS \$200
- * Biophysical Society --- Biophysics Award- \$100

Wallingford Choate Rosemary Hall ning tang

6012 Development of Innovative Low-Frequency Sound Absorption Structures Using Advanced Metamaterials

Student(s) Neil Wang **Grade** 10 **Town** long island city

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Connecticut Academy of Audiology Awards --- \$200 Award HS- For Excellence in Audiology and Acoustics, oport. to shadow an audiologist

Wallingford Choate Rosemary Hall Zhiyuan Hu

3075 Clinical Application of Early Cancer Diagnosis: Supervised and Semi-Supervised Neural Networking for the Detection and Classification of Circulating Tumor Cells

Student(s) Yumeng Wang **Grade** 11 **Town** Wallingford

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion
- * Pfizer Computational Biology and Bioinformatics Awards --- 1st Place High School - \$300, Plaque
- * Otero Family Award --- The Otero Family Award; \$250 cash

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

Waterbury ACES at Chase Rachel Murray

5015 Analyzing DNA

Student(s) **Doreen Cajuste** **Grade 7** **Town** Wolcott

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- 4th Place- Physical Sciences 7th Grade Ind. - trophy
- * National Center for Inquiry Learning --- Daniel & Maggie Award for Imagination - MS \$100
- * Demos R Us Awards --- \$150 Cash Award-- Clear Execution of Research- 7th Grade

Waterbury ACES at Chase Rachel Murray

5001 What Materials Cause the Most Static Electricity to Light an Incandescent Light Bulb?

Student(s) **LaRaina Johnson** **Grade 7** **Town** Waterbury

- * EnergizeCT Alternative & Renewable Energy Awards --- Middle School Finalist - Medallion
- * EnergizeCT Future Sustainability Awards --- Middle School Finalist - Medallion
- * Constellation Energy --- 2nd: \$50.00 Cash - Grade 7 - 8: For Excellence in clean renewable / sustainable energy
- * Bushnell Center for Performing Arts --- Pair of Tickets to Illuminate Dance - for top project involving technology and lights for Arts Applications, if possible

Watertown Taft School Amanda Benedict

3105 Biomimetic Filtration: Applying the Voronoi Pattern of Sea Urchin Shells to Remove Lead from

Student(s) **Dongeon Rhee** **Grade 9** **Town** Watertown

- * Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion
- * National Oceanic and Atmospheric Administration --- Certificate and \$25 gift card given by CSEF
- * Aquarion Water Company --- 2nd. \$250.00 Cash - Grade 9-12 For Excellence in Water Quality or Environmental Management

Westport Greens Farms Academy Mathieu Freeman

6032 STUDYING THEORIES OF PREBIOTIC CHEMICAL EVOLUTION AND ABIOTIC EVOLUTION BY TESTING THE PRESENCE OF THE PRECURSORS OF LIFE IN CLAY RESEARCH

Student(s) **Lourdes Hassan** **Grade 12** **Town** Wilton

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- Finalist - Physical Sciences Senior High - CSF Medallion

Westport Greens Farms Academy Mathieu Freeman

5523 Investigating Modified Dental X-Rays in Novel Digital Computed Radiography Imaging for Emergency Medical Services

Student(s) **Dylan Karpf** **Grade 8** **Town** Westport

- * Stanley Black & Decker Applied Technology Awards --- 1st Place Middle School - \$200 and Plaque, Medallion
- * Pepsico Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion
- * Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners
- * Lemelson Early Inventor Award --- Certificate & \$100 cash award from Lemelson Foundation
- * IEEE William R. Wessman Awards --- \$100 Honorable Mention

Westport Greens Farms Academy Juli Gerdes

3002 Investigating miR-30a-5p Modulation and its Impact on Glucose Uptake and Insulin Sensitivity in 3T3-L1 cells for Metabolic Disorder Research

Student(s) **Katerin Pineda** **Grade 12** **Town** Bridgeport

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- 2nd Place- Life Sciences Senior High- \$200 & Plaque

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

Westport Greens Farms Academy Juli Gerdes

3041 The Effect of Nrf2 inhibition through Bexarotene on the chemoresistance of Esophageal Squamous Cell Carcinoma and Esophageal Adenocarcinoma Cell Lines.

Student(s) **Stella Savone** **Grade 12** **Town** Westport

* Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion

Westport Greens Farms Academy Mathieu Freeman

3050 Equus Caballus and Human Heart Rate Variability Synchronization as a Model for Potential Atrial Fibrillation Treatment

Student(s) **Adeline Thompson** **Grade 12** **Town** Easton

* Pepsico Engineering Awards --- Finalist - Engineering High School - CSF Medallion
* NYUC Pony Club Equine or Animal Science Award --- \$100 Cash Award or excellence in equine studies

Westport Staples High School Amy Parent

3118 Effect of Diet on Lifespan, Tumor Burden and Wnt Signaling Activation in a Drosophila Apc1/Apc2-RasV12 Model of Colorectal Cancer

Student(s) **William Boberski** **Grade 12** **Town** Westport

* Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion
* Alexion Biotechnology Awards --- 2nd Place Biotechnology Senior High - \$200 & plaque

Westport Staples High School Amy Parent

3048 The Effects of Vitamin D Supplementation on Duchenne Muscular Dystrophy (DMD) in C. Elegans

Student(s) **Nolan Franics** **Grade 11** **Town** Westport

* Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion
* Society for In Vitro Biology --- Certificate and \$25 gift card given by CSEF

Westport Staples High School Amy Parent

3096 The Effect of the Nutritional Supplement, Curcumin, on Vulval induction to evaluate its role in Epidermal Growth Factor Driven Cancers

Student(s) **Alexis Krenzer** **Grade 12** **Town** Westport

* Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- 5th Place- Life Sciences Senior High- Plaque
* RNP Regenerative Medicine Excellence Awards --- \$250 - Excellence in Translational Medicine

Westport Staples High School Amy Parent

3115 Effect of dietary sweeteners on lipid accumulation in obese C. elegans to evaluate if calorie-free sweeteners promote weight reduction.

Student(s) **Sienna Young** **Grade 12** **Town** Westport

* Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion

Wilton Middlebrook School Allison Norful

1006 Smart Sprouts: Automated Precision Care for Optimal Plant Health

Student(s) **Anamitra Arjun** **Grade 7** **Town** Wilton

Anandita Arjun **Grade 7** **Town** Wilton

* Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Sciences Middle School Team - CSF Medallion

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

Wilton Middlebrook School Arnav Balaji

2522 Kidney Chronicles: Genes at Work

Student(s) Shushruth Balaji **Grade 8** **Town** Wilton

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- 5th Place- Life Sciences 8th grade- trophy
- * Pfizer Computational Biology and Bioinformatics Awards --- 1st Place Middle School - \$200, Trophy
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion

Wilton Middlebrook School Jessica Garcia

5527 Smart Eye: Assistive Glasses for the Visually Impaired

Student(s) Ishan Chugh **Grade 8** **Town** Wilton

- * Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion
- * American Society of Safety Professionals, CT Valley Chapter --- \$150 grade 7-8 project
- * IEEE William R. Wessman Awards --- \$250 Honors Award -Junior
- * Dreams Unlimited Award --- \$150 cash award and certificate
- * Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2025 Invention Convention, May 3

Wilton Middlebrook School Leah Pariso

5013 Cell Shield: Investigating Materials to Block Non-ionizing Radiofrequency Radiation from Common Cell Phone Use

Student(s) Bennett Norful **Grade 7** **Town** WILTON

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- 1st Place- Physical Sciences 7th Grade Ind. - \$200 & trophy
- * Alexion Biotechnology Awards --- 3rd Place Biotechnology 7th grade - \$100 & trophy
- * Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners
- * American Society of Safety Professionals, CT Valley Chapter --- \$150 grade 7-8 project
- * Electric Boat Management Association Science and Engineering Research Awards --- Top Prize in Nuclear Energy - \$200 Cash for top project that has innovative nuclear applications
- * Kiev Family Awards --- 3rd place - \$100 - For Excellence in Engineering Middle School

Wilton Middlebrook School Debbie Mallozzi

5507 Bus Notification System with Raspberry Pi

Student(s) Vidit Prabhu **Grade 8** **Town** Wilton

- * Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- 2nd Place- Physical Sciences 8th Grade Ind. - \$150 & trophy
- * Infosys Foundation Computer Science Awards --- 1st Place Middle School - \$200, Trophy
- * Pepsico Engineering Awards --- 1st Place- Engineering Middle School- \$200 & trophy
- * Quinnipiac University Scholarships --- \$30,000, 4 year scholarship (\$7500 per year) to Quinnipiac U. - MS Student in Computing
- * Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners
- * IEEE William R. Wessman Awards --- \$100 Honorable Mention
- * Society of Women Engineers - Hartford Section --- Scientific Calculator
- * National Center for Inquiry Learning --- Daniel & Maggie Award for Imagination - MS \$100

Wilton Middlebrook School Janica Bagosy

1026 Ocean Acidification and Its on Plant Growth

Student(s) Alex Shiue **Grade 8** **Town** Wilton

Kabir Rokkam **Grade 8** **Town** Wilton

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- 1st Place- Life Sciences MS Team- \$200 (split) & trophies
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion
- * Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners

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

Windsor Academy of Aerospace & Engineering Charles Copeland

6039 The Fibonacci sequence and generating electricity

Student(s) **Marcus Davis** **Grade 9** **Town** Broad Brook

* Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- Finalist - Physical Sciences Senior High - CSF Medallion

Windsor Academy of Aerospace & Engineering Thomas Brown

6096 Investigating Aerodynamic In Shapes of Drone: How will it affect the speed, efficiency, and drag?

Student(s) **Aulona Misini** **Grade 12** **Town** Hartford

* Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion
* IEEE William R. Wessman Awards --- \$100 Honorable Mention

Windsor The Loomis Chaffee School Larry Brackney

6520 Alternative Drivetrain System for Better Efficiency in FIRST Tech Challenge Robots

Student(s) **Emma Chu** **Grade 11** **Town** Ludlow

Yejoon Kwon **Grade 11** **Town** Saratoga

* Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- Finalist - Physical Sciences Senior Team - 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

Windsor The Loomis Chaffee School Koby Osei-Mensah

3130 Bioremediation of PFAS: Integrating Oyster Shell Waste from Connecticut's Oyster Trail

Student(s) **Hyeonho Kim** **Grade 9** **Town** Windsor

* Stanley Black & Decker Applied Technology Awards --- Senior High Finalist - Medallion
* Connecticut Association of Conservation and Inland Wetlands Commissions Environmental Sciences Awards --- HS Finalist - CSF Medallion
* Stockholm Junior Water Prize --- Certificate, \$25 gift card by CSEF, possible advance to further competition

Windsor The Loomis Chaffee School Koby Osei-Mensah

3051 Differences in Proliferating and Non-Proliferating Oligodendrocyte Precursor Cell Morphologies

Student(s) **Yejoon Kwon** **Grade 11** **Town** Saratoga

* Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion

Windsor The Loomis Chaffee School Koby Osei

6098 A Multi-Modal Modular Robotic System: Self-Assembly and Navigation in Complex Terrains

Student(s) **Michael Ma** **Grade 9** **Town** Medina

* Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- 4th Place- Physical Sciences Senior High Individual - Plaque
* Infosys Foundation Computer Science Awards --- 2nd Place High School - \$200, Plaque
* IEEE William R. Wessman Awards --- \$100 Honorable Mention

Windsor The Loomis Chaffee School Koby Osei-Mensah

6002 A Stroke of Genius: Applying Smart Wearable Technology to Record and Improve Freestyle Stroke in Competitive Swimmers

Student(s) **George Mirgorodskiy** **Grade 11** **Town** San Mateo

* Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- Finalist - Physical Sciences Senior High - CSF Medallion
* Stanley Black & Decker Applied Technology Awards --- 2nd Place High School - \$200 and Plaque Medallion
* Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion
* Electric Boat Management Association Science and Engineering Research Awards --- Top Prize in Nautical Research - \$200 Cash for top project that has innovative nautical applications

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

Windsor The Loomis Chaffee School Gaurav Sharma

3049 RNA-Based Aptamers Targeting Claudin-5 Protein in Blood as a Biomarker for Suicidal Behavior

Student(s) Sahasra Reddy **Grade** 10 **Town** West Hartford

* Pfizer Computational Biology and Bioinformatics Awards --- Senior High Finalist - Medallion

Windsor The Loomis Chaffee School Koby Osei-Mensah

3143 Mismatch repair deficiency drives resistance to alkylating agents, allowing for mutation accumulation

Student(s) Lin Zhang **Grade** 11 **Town** Greenwich

* Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion

Woodbridge Amity Regional High School Lindsay McCarthy

6017 Developing a Wireless, Discreet, Precise, and Painless Piezoelectric Micropump System for Diabetes Patients

Student(s) Joy Deng **Grade** 11 **Town** Orange

* Connecticut Science Fair Association Physical Science Awards with CMS Dorothy Minervino --- Finalist - Physical Sciences Senior High - CSF Medallion
* Stanley Black & Decker Applied Technology Awards --- Senior High Finalist - Medallion
* Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion
* Society of Women Engineers - Hartford Section --- Scientific Calculator
* University of Hartford Scholarships --- University of Hartford Scholarship - For Excellence in Engineering or Technology, Grade 11 only - \$30,000 (\$7,500/year)
* University of Connecticut Academic Excellence Scholarship --- Academic Excellence Scholarship - (amount undefined) to a junior
* Jon Stone Memorial Award --- Jon Stone Award for Innovative Engineering- \$100

Woodbridge Amity Regional High School Sarah Reeves

3136 Development of a Solar-Powered Floating Phytoremediation Device to Filter Methyl Red Dye Utilizing a Rotating Inner Disk for Enhanced Water Circulation

Student(s) Youlmin Lee **Grade** 12 **Town** Woodbridge

* Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion
* Petit Family Foundation Women in Science & Engineering Awards --- 1st Place- High School \$300 / plaque

Woodbridge Amity Regional High School Sarah Reeves

3128 Enhancing Coral Reef Resilience Through Utilizing a Two-Part Dosing System to Increase the pH levels of CO₂-Acidified Ocean Water

Student(s) Jason Liang **Grade** 11 **Town** Woodbridge

* Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion
* Freeman Family Excellence in Chemistry Awards --- \$200 For Excellence in Chemistry or Chemical Engineering - High School

Woodbridge Amity Regional High School Sarah Reeves

3037 Determining how Comorbid AUD/SUD impacts Ketamine Treatment Outcomes in Veterans with PTSD/MDD

Student(s) Mila Mejnartowicz **Grade** 11 **Town** Woodbridge

* Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion
* University of Hartford Scholarships --- University of Hartford Scholarship - For Excellence in Science or mathematics, Grade 11 only - \$30,000 (\$7,500/year)

Woodbridge Amity Regional High School Sarah Reeves

3043 Light-microscopy based connectomics: Achieving dense reconstruction of brain tissue using pan-expansion microscopy and GFP expression

Student(s) Mihir Nandy **Grade** 11 **Town** Woodbridge

* Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion

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

Woodbridge Amity Regional High School Nicholas Shamp

3147	Determining the Effects of Wood Density on the Survival, Growth, Development, and Adult Emergence of Anoplophora glabripennis
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Student(s) **Sabrina Osowiecki** **Grade** 12 **Town** Orange

- * Connecticut Science Fair Association Life Science Awards with The Jackson Laboratory --- Finalist - Life Science Senior High - CSF Medallion
- * Connecticut Association of Conservation and Inland Wetlands Commissions Environmental Sciences Awards --- HS Finalist - CSF Medallion

Woodbridge Amity Regional High School Lindsay McCarthy

6076	Developing a Solar-Powered Water Purification Device Using Hybrid Nanomaterials for Atmospheric Water Harvesting and Filtration
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Student(s) **Nikhil Petrov** **Grade** 12 **Town** Woodbridge

- * EnergizeCT Future Sustainability Awards --- 2nd Place High School - \$200 Cash and Plaque
- * Stockholm Junior Water Prize --- Certificate, \$25 gift card by CSEF, possible advance to further competition
- * U.S. Air Force --- Certificate & USAF Merchandise Package
- * GENIUS Olympiad --- GENIUS Olympiad Competition for HS Environmental, Energy, Ecology, or Biodiversity Project

Woodbridge Amity Regional High School Jacob Storeygard

6048	Using physics-based machine learning models to adjust flow rates of Herschel-Bulkley fluids in Direct Ink Writing 3D printing processes
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Student(s) **Jacob Storeygard** **Grade** 11 **Town** Woodbridge

- * Infosys Foundation Computer Science Awards --- Senior High Finalist - Medallion