



# Connecticut 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.

### Final Judging Results

## Computational Biology and Bioinformatics Awards

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

#### Award Legend

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

### Middle School

**Wilton** Middlebrook School Arnav Balaji

2522 L8 Kidney Chronicles: Genes at Work

**Award** 1 **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

### High School

**Wallingford** Choate Rosemary Hall Zhiyuan Hu

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

**Award** 1 **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

**Greenwich** Greenwich High School Andrew Bramante

3011 LS A Novel Multi-Modal ML Approach for Early Detection of Alzheimer's Disease Using Clinical, Genetic, and MRI Modalities

**Award** 2 **Student(s)** Keen-Yin Woo **Grade** 11 **Town** Riverside

- \* 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

**Wallingford** Choate Rosemary Hall Ben Small

3155 LS 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

**Award** 3 **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



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**Avon** Avon High School Galuska Andrea

3132 LS Pathonix: Enhancing Ovarian Cancer Detection with an Explainable and Efficient Ensemble Learning Framework

**Award** m **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

**Bethel** Bethel High School Turek Ray

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

**Award** m **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

**Greenwich** Sacred Heart Greenwich Joyce Reed

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

**Award** m **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

**Hamden** Hamden Hall Country Day School Lucia Jilaveanu

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

**Award** m **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



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## Computational Biology and Bioinformatics Awards

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

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

**Award** m **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 New Haven's Milton Fisher Awards for Innovation and Creativity --- For Excellence in Creativity and Innovation by a High School student, \$100 cash

**Redding** CT STEM Lindsay McCarthy

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

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

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

**South Windsor** South Windsor High School Suma Basavarappa

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

**Award** m **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

**Stamford** King School Victoria Schulman

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

**Award** m **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

**Windsor** The Loomis Chaffee School Gaurav Sharma

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

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

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