



# Conn. Science & Engineering Fair

## Quinnipiac University

March 3 - 15, 2025

### ISEF Winners

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#### CSEF Physical Sciences

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

#### CSEF Physical Sciences

Karthik Srikumar                      South Windsor High School                      South Windsor  
*OatNET: Novel Neural Network architecture & mathematical model for reducing Dense Layer  
computational complexity via ternary weight decomposition & rank-1 magnitude approximation.*

#### CSEF Life Sciences

Srinidhi Karthik                      South Windsor High School                      South Windsor  
*Targeting Telomerase Activity in Malignant Cancer Cells: RNA Interference and Enzymatic Inhibition to  
Induce Growth Arrest, Senescence, and Block Metastatic Dissemination*

#### CSEF Life Sciences

Keen-Yin Woo                      Greenwich High School                      Greenwich  
*A Novel Multi-Modal ML Approach for Early Detection of Alzheimer's Disease Using Clinical, Genetic,  
and MRI Modalities*

#### Alexion Biotechnology

William Boberski                      Staples High School                      Westport  
*Effect of Diet on Lifespan, Tumor Burden and Wnt Signaling Activation in a Drosophila Apc1/Apc2-  
RasV12 Model of Colorectal Cancer*

#### Urban School Challenge

Ethan Joseph                      Engineering and Science University Magnet                      New Haven  
*Implementation and Validation of a Novel Machine-Learning-Based Mobile Gyrocardiography System  
for Arrhythmia Detection*

#### Engineering

Lula Wang                      Greenwich High School                      Greenwich  
*Lipid-Based Codelivery of Doxorubicin and siRNA PD-L1, as a Multi-function Chemo-immunotherapy,  
Selective to PDAC via its MUC1 Overexpression*