

# Results of the 2026 Connecticut High School Science and Humanities Symposium



(Left to right, not in finishing order): Victoria Makarov, Sabrina Liu, Tyler Malkin, Ravindu Karunaratne, Aryan Shrivastav, and Lucia Vivanco were top finishers at the Connecticut High School Science and Humanities Symposium, held February 28, 2026, at UConn Health in Farmington.

## Oral Competitors

**1st Place:** Tyler Malkin, sophomore, Greenwich High School

*Development of a Novel Nanoparticle Drug-Delivery System Using OLAH Targeting to Deliver Surfactant Protein and Prevent Neonatal Respiratory Distress Syndrome*

**2nd Place:** Sabrina Liu, sophomore, Choate Rosemary Hall, Wallingford

*NeuroMirror: A Hebbian-Theory–Based EEG-Driven Mirror Therapy System for Post-Stroke Upper-Limb Rehabilitation*

**3rd Place:** Lucia Vivanco, senior, King School, Stamford

*Experimentation and Application of Nutrient Additives to Enhance Resilience of Coral Reefs against Climate Change*

**4th Place:** Aryan Shrivastav, junior, Amity Regional High School, Woodbridge

*Developing a Bio-Hybrid Luminescent Solar Concentrator Using Carbon Quantum Dots, Natural Fluorophores, and Kaolin Powder for Enhanced Solar Energy Harvesting*

**5th Place:** Ravindu Karunaratne, senior, Hamden Hall Country Day School

*Utilizing Exfoliated Graphite for Oil Extraction from Spills via Autonomous Robotic Devices*

**Special Merit (6<sup>th</sup> - 10<sup>th</sup> Place):** Marilyn Sommerville, King School, Stamford; Sahithi Aliminate, Engineering and Science University Magnet School, West Haven; Rhea Doshi, Kingswood Oxford School, West Hartford; Armaan Shrivastav, Amity Regional High School, Woodbridge; Nolan Francis, Staples High School, Westport

### **Poster Competitors**

**1st Place:** Victoria Makarov, senior, Laurel Springs School (online)

*Optimizing Bus Fleet Allocation in Mid-sized Cities Using Mixed-Integer Nonlinear Programming: A Case Study in Stamford, CT*

**2nd Place:** Leon Wang, senior, King School, Stamford

*Repurposing Idiopathic Pulmonary Fibrosis Drugs to Treat Vascular Alzheimer's Dementia: A Safe, Effective, and Accessible Approach to Alzheimer's Treatment*

**3rd Place:** Rithvik Suren, sophomore, CREC Academy of Aerospace and Engineering, Windsor

*Next-Generation Interplanetary Rovers: Physical Implementation & Validation of Neuromorphic Artificial Intelligence Systems for Autonomous & Adaptive Terrain Exploration*

### **UConn Academic Excellence Award**

Aryan Shrivastav, junior, Amity Regional High School, Woodbridge

*Developing a Bio-Hybrid Luminescent Solar Concentrator Using Carbon Quantum Dots, Natural Fluorophores, and Kaolin Powder for Enhanced Solar Energy Harvesting*

### **Backyard Scientist Awards**

Rhea Doshi, sophomore, Kingswood Oxford School, West Hartford

*AI-Powered Gait Analysis for Early Detection of Alzheimer's Disease and Mild Cognitive Impairment*

Victoria Makarov, senior, Laurel Springs School (online)

*Optimizing Bus Fleet Allocation in Mid-sized Cities Using Mixed-Integer Nonlinear Programming: A Case Study in Stamford, CT*

### **People's Choice Award (STEM Poster Exhibition)**

Arnav Bhatia, junior, Greenwich High School

*CD44-Targeted Nanoparticle Co-delivery of Simvastatin and Colchicine for Localized Treatment of Atherosclerotic Plaque Inflammation in Cardiovascular Disease*