2024 Region V Science & Engineering Fair Winners.
Congratulations to all students, teachers and mentors for their hard work!

Name	School	Project Title	Special Awards
1st Place Sanofi Specialty Care Grand Prize. The winner will advance to the MA State Science & Engineering Fair in April, and will represent Region V at the International Science and Engineering Fair in Los Angeles, CA., May 11-17			
Anna Li	North Quincy High	How does the Species of Microalgae Reduce the Effects of Carbon Dioxide in Seawater on Calcium Carbonate	
1st Place Award Winners - These students advance to the MA State Science & Engineering Fair on April 5th at Gillette Stadium			
Pranav Addanki	Canton High	Identifying a Novel, Inexpensive, and Noninvasive Biomarker for Fibromyalgia: Using Metabolomics, Genomics, and a Drosophila melanogaster Model	NE Branch American Society for Microbiology
Remy Kim	Winsor School	Dopaminergic synapse organizing molecules and their implications for Parkinson's Disease	
Kuai Alex	Newton North High	Advanced 3D Deep Transfer Learning for Multistage Alzheimer's Disease Diagnosis	
Husang Lee	Newton South High	Inhibition of melanin synthesis and anti-inflammatory effects of Leuconostoc mesenteroides derived exosomes separated from Camellia japonica flower	
Elliot Stead	Martha's Vineyard Regional High	Developing an Environmental Sensor, Designing, and Building a Sounding Rocket to Contain It	
Max Donovan	Falmouth Academy	Determining the Sustainability of Different Wood Pellet Types	MA Chemistry & Techology Award
Huiyi Wen	Tabor Academy	Sustainable and Cost-Effective Cactus-Inspired Fog Collecting Kirigami	AMD Engineering Excellence Award
2nd Place Award Winners - These students advance to the MA State Science & Engineering Fair on April 5th at Gillette Stadium			
Molly Gedutis	Dennis-Yarmouth Regional High	Insecticide Resistance and Efficacy in Culex Mosquitoes on Cape Cod	Environmental Protection Agency
Isabella Adarme	Newton Country Day School	Using the B6Ei.LT-Y* mouse model to investigate the contribution of sex chromosomes within the Kiss1+ neurons of the preoptic hypothalamus.	Office of Naval Research Award
Hayim Sims	Maimonides School	Nanoparticle Guided Synthesis of Size-Tunable Photonic Crystals	Office of Naval Research Award

Ganghun Kim	The Fessenden School	On the properties of quadrilaterals determined by triangle centers	Office of Naval Research Award
Yuyao Wu	Thayer Academy	Bionic Insect Jumping Device	US Airforce Award
Yaniv Taussky	Wellesley Sr High	Preventing Abortive Spinal Surgery using a Novel Machine Learning Classification of Posterior Thoracolumbar Instrumentation Systems	US Airforce Award
Sam Lizotte	Brockton High	Using Machine Learning to Detect Alzheimer's Disease in MRI Scans	MA Life Science Award
Ludovica Melodia	Newton Country Day School	A Model for Smarter Urban Intersections	US Airforce Award
Agastya Sarmah	Sharon High	Identification of Potential Biomarker and Survival Analysis for Hepatocellular Carcinoma Utilizing Bioinformatics Approach: An Investigation Utilizing Cancer Datasets	US Airforce Award
Zimon Li	Rivers School	RBC Folate's Effect on Cardiovascular Disease	
Nicholas Ramos	Barnstable High	Investigating the Effect of Varying Pigment to Binder Ratios on Paint Performance	
Aishwaryalakshmi Saravanan	Sharon High	Inhibiscore: Utilizing Artificial Intelligence to Discover a Promising ERα-Targeted Breast Cancer Therapy	
3rd Place Award Winners - These students advance to the MA State Science & Engineering Fair on April 5th at Gillette Stadium			
Michelle Chen	North Quincy High	Balance in Carbonate Convergent Waves	Assocation for Women Scientist
Vera Medvedeva	Millis High School	Silent Protectors: The Covert Transformation of Angiogenin in Cancer Defense	
Avaneesh Mohan	Sharon High	Filtration Capabilities of different chemicals for PFOAs and PFAS molecules	
Zhiyang Zhong	Tabor Academy	Predictions of Massachusetts Coastal Vertebrate Biodiversity under Global Warming and Ocean Acidification Based on CMIP5 Models	
Christian Bunge, Maxwell Fernald, Finn Yemini	Center for Student Coastal Research	Seagrass Wasting Disease's effect on eelgrass under environmental stressors such as salinity	National Oceanic and Atmospheric Administraion
Christopher Yoo	Noble And Greenough School	Machine Learning Approaches to Enhance Inverse Kinematics in Robotics	
Jack Li, Jayson Wang	Wellesley Sr High	Selection of Green and Sustainable Bio-Based Solvent by Artificial Intelligence for Pharmaceutical Research and Process Development	

Yvangi Jacques	Brockton Public Library	A Sound Approach to Attracting or Repelling Pollinator Insects	
Derek Jin	Noble And Greenough School	Energy-Efficient Egocentric Video Recognition	
Andrew Kan, Christopher Kan	Noble And Greenough School	ViMGuard: Automating Fact-Checking in Short-form Video Content with Video Masked Autoencoders for Misinformation Guarding	
Kyle Denny	Brockton Public Library	Biochar's Potential for Mitigating Climate Change	NASA Earth Systems Science Award
Yuyuan Huang	The Winsor School	DebateGPT: Assessing the Accuracy of Context-Dependent Generative AI Responses to American Parliamentary Debate Queries	
Erin Bourque Regan Montague	Newton Country Day School	The Effect of Sunscreens on the Mortality Rate of Daphnia magna	
Ella Rosenthal	Falmouth High	Biofuel Potential of Cape Cod Seaweeds	
Jamison Ballou	St. John Paul II High School	Shuffle Science: Analyzing Machines, Riffles, and Algorithms in Card Shuffling	
Marko Mano	North Quincy High	Synthesizing and Optimizing Biodegradable Pectin-Manuka Honey Hydrogels for Transcutaneous Electrical Nerve Stimulation (TENS) Therapy and its Applications in Tissue Engineering	
Maisie Chase, Celia Suttles	Falmouth High	The Impact of Invasive Phragmites on Soil Carbon Density, and Hydraulic Conductivity	
Taleena Gonneea	Falmouth Academy	Observing the Effect of Microplastics on Zebrafish Macrophages	
Susan Evans	North Quincy High	Chemical Profiling of the Triglycerides in Two Species of Microalages Using a Green Extraction Method	
Luke Okoshi-Michel	Falmouth Academy	Investigating the Impact of Oyster Aquaculture on Water Quality	
Honorable Mention Award Winners - While these students do not advance to MSEF we feel their projects deserve recognition.			
Andrea Tang	Newton South High	An Innovative Assessment of the Transgenerational Effects of Extreme Temperatures on Children's Health	
Willow Wakefield	Falmouth Academy	The Effects of Alcohols on Tardigrades and C. elegans	

Robert Simpkins	Falmouth High	Dusty Plasma	
Elaine Zhang	Dover-Sherborn Regional High	Computational Analysis of Cell Type-Specific Transcriptional Dynamics in Major Depressive Disorder	
Brian Zhang	North Quincy High	The Effect of Ethanol Solvent of Various pH on Beetroot Dye	
Elmeria Cheung	North Quincy High	Decomposition of Different Bioplastics	
Maya Tittel	Quincy High	How Do Various Forms of Sugar Affect Saccharomyces cerevisiae's Growth?	
Belle Li	North Quincy High	Observing the Visible Spectrum after the Interference of Water, Isopropyl Alcohol, and Acetone	
David Aubrey	Falmouth Academy	Gumby Power: A Novel Wave Energy Converter	
Lucas DeFilippo, Feichen Li, Kyle Wu	Weston High	Digital Night Vision Goggles	
Fany Benitez, Skyla Sturtevant	Southeastern Regional Vocational Technical	What's the Buzz on Bee Pan-Trap Preference?	
Catherine Reinhart, Abby Taylor	Hanover High	How does Flour Effect Baking Cookies?	