2025 Senior Division Awards

Alabama Science and Engineering Fair

Special Awards Senior Divisions (grades 9-12)

The Office of Naval Research
Naval Science Award
Special Award Description:
This award recognizes up to 3 individual projects that show excellence in science or engineering. Winners will receive a certificate, a medallion and an award verification letter redeemable for a $75 cash award.

Student Name: Felix Brown
School: Providence Classical School (HS)
Project Name: Development and Characterization of a High Voltage Electromagnetic Launcher

Student Name: John Belew
School: Wetumpka High School
Project Name: Developing an Enhanced Feature-Rich Dataset for Portable Executable Malware Classification with Deep Learning and Static Analysis

Student Name: Sophia Guo
School: Alabama School of Fine Arts
Project Name: Sustainable UV-Curable Monomers derived from Glycerol for 3D Printing Applications

HudsonAlpha Institute
HudsonAlpha Creative Computation Award
Special Award Description:
This award celebrates a project that illustrates a student's knowledge of computational tools in science research. The awardee will receive a certificate and $200 cash prize.

Student Name: McNair Shah
School: Alabama School of Fine Arts
Project Name: Human Connectome Super-
Resolution using Diffusion Models and Graph Neural Networks

QuantHub
QuantHub Distinguished Data Scholar Award
Special Award Description:
This award recognizes a student who has shown exceptional proficiency and creativity in data science. The awardee will receive a certificate and $200 cash award.

Student Name: John Belew
School: Wetumpka High School

Project Name: Developing an Enhanced Feature-Rich Dataset for Portable Executable Malware Classification with Deep Learning and Static Analysis

IERUS Technologies, Inc
Excellence in Electromagnetics Award
Special Award Description:
This award recognizes the creative use of lasers, radar, electronics, magnets, computers, or other innovative applications of electromagnetism in a science or engineering project. The awardees will receive a certificate and $200 cash award.

Student Name: Srihansi Sagi
School: Alabama School of Fine Arts
Project Name: Laser Excited Atomic Fluorescence Spectroscopy for the Detection of Airborne Heavy Metals Cd, Mn, and As

Student Name: Ashu Anand
School: Alabama School of Fine Arts
Project Name: Developing Emulsion Additives to Enhance Rheological Behavior in Non-Aqueous Magnetorheological Smart Fluids

United States Air Force
Air Force Award
Special Award Description:
This certificate and special packet will be given to a student who shows excellence in science or engineering.

Student Name: Tianjun Xu, Justin Yoon
School: Northridge High School
Project Name: Aerial Thermal Imaging for Heat Detection in Inaccessible Areas Using Drone Technology

East Alabama and West Georgia local section of the American Chemical Society
East Alabama and West Georgia ACS Award
Special Award Description:
This award is sponsored by the East Alabama and West Georgia local section of the American Chemical Society and celebrates creativity and understanding within chemical science. The awardee will receive a certificate and $200 cash award.

Student Name: Daniel Pacheco
School: Alabama School of Math and Science
Project Name: Quantum Theory Prediction of Anionic Metal Oxide Catalyst Efficiency for Methane-to-Methanol Conversion

100+ Women Strong at Auburn University
100+ Women Strong Achievement Award
Special Award Description:
This achievement award recognizes a student that exemplifies excellence through research in any category. The awardee will receive $200 cash award and a certificate.

Student Name: Sophia Guo
School: Alabama School of Fine Arts
Project Name: Sustainable UV-Curable Monomers derived from Glycerol for 3D Printing Applications

Student Name: Ashu Anand
School: Alabama School of Fine Arts
Project Name: Developing Emulsion Additives to Enhance Rheological Behavior in Non-Aqueous Magnetorheological Smart Fluids

Department of Biological Sciences at Auburn University
Biological Sciences Award in Cell, Molecular, Microbiology and Biochemistry
Special Award Description:
This award recognizes an outstanding poster in the Cell, Molecular, Microbiology & Biochemistry category by a high school student. The awardee will receive a certificate and a $200 cash award.

Student Name: Brianna Wilkinson
School: St. John Paul II Catholic High School
Project Name: Beet Infection

Department of Biological Sciences at Auburn University
Biological Sciences Award in Animal, Plant Sciences and Bioinformatics
Special Award Description:
This award recognizes an outstanding poster in the Animal, Plant, Computational and Bioinformatics Sciences category by a high school student. The awardee will receive a certificate and a $200 cash award.

Student Name: Harini Chakilam
School: Alabama School of Fine Arts
Project Name: Using Explainable AI in Immunohistochemistry Cell Images for Cancer Diagnosis

Department of Biological Sciences at Auburn University
Biological Sciences Award in Medicine and Health Sciences
Special Award Description:
This award recognizes an outstanding poster in the Medicine, Health & Translational Medical Sciences category. The awardee will receive a certificate and a $200 cash award.

Student Name: Jatin Banna, Yujin Bong
School: LAMP
Project Name: Investigating the Effects of Commercial Ganoderma lucidum Powder on Cancer Cell Proliferation

Department of Chemistry and Biochemistry at Auburn University
Chemistry and Biochemistry Award

Special Award Description:
This award is designed to recognize the top chemistry/biochemistry project. The awardee will receive a certificate and $200 cash award.

Student Name: Hayden Mckenzie
School: Wetumpka High School
Project Name: Illuminating the Evidence

Department of Geosciences at Auburn University
Geosciences Award

Special Award Description:
This award recognizes high achievement in the area of geoscience, geology, and geography. The winner will receive a certificate and $200 cash award.

Student Name: Elle Prasthofer
School: St. John Paul II Catholic High School
Project Name: H2 Go: Soil Water Retention

Southeastern Center of Robotics Education (S.C.O.R.E.) at Auburn University
Innovation of Robotic Systems

Special Award Description:
This award recognizes a project that shows great promise in the use of robotic systems. The winner will receive a certificate and a $200 cash award.

Student Name: Edwin Wu
School: Montgomery Academy
Project Name: Intelligent IoT-Driven Medication Dispenser with Predictive Machine Learning Algorithms for Enhanced Senior Care

Department of Physics at Auburn University
Physics Award for Ingenuity and Inventiveness

Special Award Description:
This award recognizes someone who demonstrates an understanding of the laws of physics and how to use them to interpret and understand the world around us. The winner will receive a certificate and $200 cash award.

Student Name: Felix Brown
School: Providence Classical School (HS)
Project Name: Development and Characterization of a High Voltage Electromagnetic Launcher

Associate Dean for Research, College of Sciences and Mathematics at Auburn University
Innovation in Science Research Award
Special Award Description:
This award recognizes an innovative topic or innovative approaches in research methodologies for a science project. The awardee will receive a certificate and $200 cash award.

Student Name: Evelyn Creehan
School: St. John Paul II Catholic High School
Project Name: Microbiome Busters

I-STEM Connectory at Auburn University
Garage Science Award
Special Award Description:
Many scientific discoveries or engineering marvels have happened outside of a laboratory. This award celebrates 2 students who created outstanding projects within their home or garage.
The winners will receive a certificate and $200 cash award.

Student Name: Felix Brown
School: Providence Classical School (HS)
Project Name: Development and Characterization of a High Voltage Electromagnetic Launcher

Student Name: John Parsons
School: Auburn High School
Project Name: Examining and Mathematically Modeling the Einstein-de Haas Effect
Under Varied Conditions

Office of Academic Engagement, Innovation and Opportunity, College of Sciences and Mathematics at Auburn University
Spirit of Excellence Award
Special Award Description:
This award recognizes excellence in science research by a student. The winner will receive a certificate and $200 cash award.

Student Name: Janaia Vanterpool
School: Oakwood Adventist Academy (HS)
Project Name: The Impact of Popular Skincare Products on Staphylococcus enzyme activity part 2

Department of Mathematics and Statistics at Auburn University
Talent in Mathematics and Statistics Award
Special Award Description:
This award recognizes a project, from any category, that demonstrates a strong mathematical and statistical analysis. The winner will receive a certificate and a $200 cash award.

Student Name: Yanghong Chi
School: Alabama School of Math and Science
Project Name: Domination in Maximal Outerplanar Graphs

Aerospace Engineering Department at Auburn University
Future Rocket Scientist Award

Special Award Description:
This award recognizes high achievement in research related to Aerospace Engineering. The winner will receive a certificate and a $200 cash award.

Student Name: Sumedh Patil
School: Davidson High School
Project Name: Electromagnetic Space Launch System

Department of Biosystems Engineering at Auburn University
Biosystems Engineering Award

Special Award Description:
This achievement award recognizes an individual that demonstrates an innovative approach to application of math and/or engineering to biological systems. The winner will receive a certificate and a $200 cash award.

Student Name: Srihansi Sagi
School: Alabama School of Fine Arts
Project Name: Laser Excited Atomic Fluorescence Spectroscopy for the Detection of Airborne Heavy Metals Cd, Mn, and As

Department of Chemical Engineering at Auburn University
Chemical Engineering Award

Special Award Description:
This award recognizes high achievement in scientific research in fields related to Chemical Engineering or Applied Chemistry. The winner will receive a certificate and a $200 cash award.

Student Name: Ashu Anand
School: Alabama School of Fine Arts
Project Name: Developing Emulsion Additives to Enhance Rheological Behavior in Non-Aqueous Magnetorheological Smart Fluids

Department of Electrical and Computer Engineering at Auburn University
Electrical and Computer Engineering Award

Special Award Description:
This award is presented to an outstanding project in the Robotic Systems and Communication Technology category. The winner will receive a certificate and $200 cash award.

Student Name: Adonay Mahatsente-Tewelde
School: Northridge High School
Project Name: Occlusion-Resilient Learning: A Novel Application of Synthetic Radar Data and the Orthogonal Matching Pursuit for Search and Rescue

Auburn University Bee Center at Auburn University
Auburn University Bee Center Pollinator Stewardship Award

Special Award Description: This award recognizes projects that align with the AU-Bees mission of promoting honey bee, native bee, and other native pollinator communities. The awardee will receive a certificate and $200 cash award.

Student Name: Nora Evans, Saisha Sahoo
School: Alabama School of Fine Arts
Project Name: Investigating the Effects of Pharmaceutically Contaminated Water on the Germination and Survival Rate of Helianthus Occidentalis

Edward Via College of Osteopathic Medicine (VCOM-Auburn)
Excellence in Medical Science Award

Special Award Description:
This award recognizes a project that shows great promise in the fields of Medicine, Health, and Translational Medical Science. The awardee will receive a certificate and $200 cash award.

Student Name: William Peng
School: Alabama School of Fine Arts
Project Name: A CRISPR Knockout Screen Systematically Identifies Critical Epigenetic Barriers in Direct Cardiac Reprogramming

Dean of the College of Sciences and Mathematics at Auburn University
Future Scientist or Mathematician Award

Special Award Description:
This award will be given to a student, in any category, who demonstrates a complete, thorough and current understanding of a scientific topic during their interview. As such, this student shows great promise as a future scientific researcher. The award winner will receive a certificate and a $200 cash award.

Student Name: Advitiya Kana
School: Hoover High School
Project Name: Reading the Mind in the Eyes

Dean of the Samuel Ginn College of Engineering at Auburn University
Outstanding Engineering Award

Special Award Description:
This award recognizes a project, in any category, that demonstrates an innovative application of math or science to a societal challenge. The award winner will receive a certificate for their efforts and a $200 cash award.

Student Name: Michael Pennington, Maizie Seltz, Shihan Tahmid
School: Hoover High School
Project Name: TremSteady Vibrating Pen

Dean of the College of Agriculture at Auburn University
Innovative Practices in Agriculture Award

Special Award Description:
This cash prize of $200 recognizes innovative research related to soil management, crop production, or water resources.

Student Name: Kira LeFevre
School: Wetumpka High School
Project Name: Will Adding Artificial Light to a Chicken Coop Help With Egg Production During Molting?

Dean of the College of Forestry, Wildlife and Environment at Auburn University
Excellence in Environmental Stewardship Award

Special Award Description:
This award is presented to a student who has demonstrated outstanding commitment and innovative a pproaches to the conservation and management of natural resources, wildlife, or the environment. The winner will receive a certificate and $200 cash award. The awardee will also receive the Ricoh Sustainable Development Award and trees planted on their behalf by One Tree Planted.

Student Name: Alexander Bian, Christopher Valeri
School: Auburn High School
Project Name: The Effect of 3D Printer Infills on the Mechanical Properties of Printed Parts

Dean of the Harrison College of Pharmacy at Auburn University
Medical Interventions Award

Special Award Description:
The Auburn University Harrison College of Pharmacy is providing a $200 cash prize for a student whose project aims to improve human health and longevity by translating novel discoveries in the biomedical sciences into effective activities and tools for clinical and public health use.

Student Name: Nathan Lee, Shresta Majeti
School: Northridge High School
Project Name: Improved Medicine Delivery Using Combined Targeting Techniques

Dean of the College of Veterinary Medicine at Auburn University
Health and Wellness of Animals Award

Special Award Description:
The Auburn University College of Veterinary Medicine is providing a $200 cash prize in recognition of one research project that shows the most promise for improving the health and well-being of agricultural or human companion animals.

Student Name: Annie Bao
School: Auburn High School
Project Name: Development of a Novel Plasma Assay for Plasminogen Activator-Inhibitor (PAI-1) Activity in Healthy Dogs and Dogs with Immune-Mediated Hemolytic Anemia (IMHA)

Regeneron
Regeneron Moving Biomedical Science Award
Special Award Description:
Society for Science is proud to partner with Regeneron to inspire and celebrate the next generation of biomedical science heroes. The Regeneron Moving Biomedical Science Award, sponsored by Regeneron, is a $375 award to be given at Society-affiliated science fairs in the United States and its territories in 2025.

Student Name: William Peng
School: Alabama School of Fine Arts
Project Name: A CRISPR Knockout Screen Systematically Identifies Critical Epigenetic Barriers in Direct Cardiac Reprogramming

Southern Research Institute
Southern Research Moving Science Award
Special Award Description:
The Southern Research Moving Science Award recognizes an exceptional project for outstanding scientific inquiry, creativity, and innovation. Judged on research quality, methodology, presentation clarity, and impact, the winner is celebrated for significant contributions to science and is seen as a future leader with limitless potential, inspiring creativity and innovation in future generations. The winner will receive a certificate and cash prize of $375.

Student Name: Daniel Pacheco
School: Alabama School of Math and Science
Project Name: Quantum Theory Prediction of Anionic Metal Oxide Catalyst Efficiency for Methane-to-Methanol Conversion

Aptar CSP Technologies
Aptar Moving Science Award
Special Award Description:
The Aptar Moving Science Award recognizes an exceptional project for outstanding scientific inquiry, creativity, and innovation. Judged on research quality, methodology, presentation clarity, and impact, the winner is celebrated for significant contributions to science and is seen as a future leader with limitless potential, inspiring creativity and innovation in future generations. The winner will receive a certificate and cash prize of $375.

Award Name: Aptar Moving Science Award
Student Name: Tianjun Xu, Justin Yoon
School: Northridge High School
Project Name:
Aerial Thermal Imaging for Heat Detection in Inaccessible Areas Using Drone Technology

Aptar CSP Technologies
Aptar Apex of Excellence Award
Special Award Description:
The Aptar Apex of Excellence Award is presented to a top project that exemplifies outstanding innovation, creativity, and scientific rigor. The recipient of this award demonstrates exceptional

problem-solving skills, a deep understanding of scientific principles, or the ability to apply engineering concepts to real-world challenges. The winning project exemplifies excellence in research, design, and execution, setting a high standard for future participants. The winner will receive a certificate and cash prize of $500.

Student Name: Madeline Borchert
School: Alabama School of Math and Science
Project Name: Designing RNAi pesticides to specifically target invasive species

Alabama Science and Engineering Fair at Auburn University
ISEF FINALISTS

Special Award Description:
The Alabama Science and Engineering Fair is proud to support the 4 ISEF Finalists. Each Finalist will receive a certificate of accomplishment and a trophy recognizing their significant accomplishments thus far in the 2025 Regeneron Science and Engineering Fair season.

Student Name: Daniel Pacheco
School: Alabama School of Math and Science
Project Name: Quantum Theory Prediction of Anionic Metal Oxide Catalyst Efficiency for Methane-to-Methanol Conversion

Student Names: Tianjun Xu, Justin Yoon
School: Northridge High School
Project Name: Aerial Thermal Imaging for Heat Detection in Inaccessible Areas Using Drone Technology

Student Name: William Peng
School: Alabama School of Fine Arts
Project Name: A CRISPR Knockout Screen Systematically Identifies Critical Epigenetic Barriers in Direct Cardiac Reprogramming

Senior Division Category Award Winners

1st place receives $200 cash prize, certificate and ASEF medal
2nd place receives $100 cash prize, certificate and ASEF medal
3rd place receives certificate and ASEF medal

0100 Animal and Plant Sciences
Sponsored by the College of Agriculture at Auburn University

Annie Bao
Project Name: Development of a Novel Plasma Assay for Plasminogen Activator-Inhibitor (PAI-1) Activity in Healthy Dogs and Dogs with Immune-Mediated Hemolytic Anemia (IMHA)
Placement: 3rd Place
School: Auburn High School

Zoya Aleezada
Project Name: Utilizing Time Lapse Photography to Evaluate Predators on the Nesting Beach of the Endangered Kemp's Ridley Sea Turtle
Placement: 2nd Place
School: Alabama School of Fine Arts

Madeline Borchert
Project Name: Designing RNAi pesticides to specifically target invasive species
Placement: 1st Place
School: Alabama School of Math and Science

0200 Behavioral & Social Sciences
Sponsored by the I-STEM Connectory at Auburn University

Parker Thompson
Project Name: Leveraging Artificial Intelligence to Improve Health Literacy and Promote Health Equity
Placement: 3rd Place
School: Wetumpka High School

Ian Shen
Project Name: Behavioral Effects of Acute Cocaine Exposure in C. elegans
Placement: 2nd Place
School: Alabama School of Fine Arts

Jeremiah Ray
Project Name: Smartphones: Are We Addicted?
Placement: 1st Place
School: Wetumpka High School

0300 Cell, Molecular, Microbiology & Biochemistry
Sponsored by the Southern Research

Gaeun Lee
Project Name: The Role of KatG-Specific Structures in Hydrogen Peroxide Mediated Activation of the Anti-Tubercular Drug Isoniazid
Placement: 3rd Place
School: Auburn High School

Krista Pledger
Project Name: Which of the common gut flora (Clostridium sporogenes, Enterobacter aerogenes, or Escherichia coli) is best able to break down water soluble azo dyes?
Placement: 2nd Place
School: Davidson High School

Mira Menon
Project Name: Dynamic Modulation of Axonal Trafficking of Synaptic Vesicles in Activity-Dependent Presynaptic Function
Placement: 1st Place
School: LAMP

0400 Chemistry
Sponsored by Aptar CSP Technologies

Sophia Guo
Project Name: Sustainable UV-Curable Monomers derived from Glycerol for 3D Printing Applications
Placement: 3rd Place
School: Alabama School of Fine Arts

Daniel Pacheco
Project Name: Quantum Theory Prediction of Anionic Metal Oxide Catalyst Efficiency for Methane-to-Methanol Conversion
Placement: 2nd Place
School: Alabama School of Math and Science

Urvi Mysore
Project Name: Synthesis and Iron Modification of Zeolitic Imidazolate Frameworks for the Adsorption of Hexavalent Chromium
Placement: 1st Place
School: James Clemens High School

0500 Engineering
Sponsored by the Samuel Ginn College of Engineering at Auburn University

Will Bao, Austin Zhan
Project Name: 3D-Printed Textiles via Computer Simulation and Machine Learning Optimization
Placement: 3rd Place
School: Auburn High School

Ashu Anand
Project Name: Developing Emulsion Additives to Enhance Rheological Behavior in Non-Aqueous Magnetorheological Smart Fluids
Placement: 2nd Place
School: Alabama School of Fine Arts

Tianjun Xu, Justin Yoon
Project Name: Aerial Thermal Imaging for Heat Detection in Inaccessible Areas Using Drone Technology
Placement: 1st Place
School: Northridge High School

0600 Energy
Sponsored by the College of Sciences and Mathematics at Auburn University

Albert Chen
Project Name: Development and Testing of Simple Novel Dual-Axis Solar Tracking Design for Increased Performance
Placement: 2nd Place
School: Alabama School of Fine Arts

Noah Pearson, Maddox Springer, Shubh Patel
Project Name: Energy Soles
Placement: 1st Place
School: Hewitt-Trussville High School

0700 Earth and Environmental Sciences & Environmental Engineering Sponsored by the College of Forestry, Wildlife and Environment at Auburn University

Gabrol Dubose, Taelynn Teel
Project Name: Parameter Optimization of Reclaiming Polyolefins from Multilayer Plastics by Selective Dissolution
Placement: 3rd Place
School: Central High School, Phenix City

Srihansi Sagi
Project Name: Laser Excited Atomic Fluorescence Spectroscopy for the Detection of Airborne Heavy Metals Cd, Mn, and As
Placement: 2nd Place
School: Alabama School of Fine Arts

Saisha Sahoo, Nora Evans
Project Name: Investigating the Effects of Pharmaceutically Contaminated Water On the Germination and Survival Rate of Helianthus Occidentalis
Placement: 1st Place
School: Alabama School of Fine Arts

0800 Biomedical Engineering & Biomedical and Health Sciences Sponsored by College of Veterinary Medicine at Auburn University

Shresta Majeti, Nathan Lee
Project Name: Improved Medicine Delivery Using Combined Targeting Techniques
Placement: 3rd Place
School: Northridge High School

William Peng
Project Name: A CRISPR Knockout Screen Systematically Identifies Critical Epigenetic Barriers in Direct Cardiac Reprogramming
Placement: 2nd Place
School: Alabama School of Fine Arts

Tuan Tran
Project Name: Multi-Omics & Immunoinformatics Analyses Demonstrate Midkine As A Potential Therapeutic Target For Pancreatic Ductal Adenocarcinoma
Placement: 1st Place
School: Indian Springs School

0900 Physics, Astronomy & Mathematics
Sponsored by FTPP

Corbin Hawkes
Project Name: The QuEST for Quantum Entanglement
Placement: 3rd Place
School: Sparkman High School

Felix Brown
Project Name: Development and Characterization of a High Voltage Electromagnetic Launcher
Placement: 2nd Place
School: Providence Classical School (HS)

John Parsons
Project Name: Examining and Mathematically Modeling the Einstein-de Haas Effect Under Varied Conditions
Placement: 1st Place
School: Auburn High School

1100 Robotic Systems & Communication Technology
Sponsored by NASA – Alabama Space Grant Consortium

John Belew
Project Name: Developing an Enhanced Feature-Rich Dataset for Portable Executable Malware Classification with Deep Learning and Static Analysis
Placement: 3rd Place
School: Wetumpka High School

Adonay Mahatsente-Tewelde
Project Name: Occlusion-Resilient Learning: A Novel Application of Synthetic Radar Data and the Orthogonal Matching Pursuit for Search and Rescue
Placement: 2nd Place
School: Northridge High School

Edwin Wu
Project Name: Intelligent IoT-Driven Medication Dispenser with Predictive Machine Learning Algorithms for Enhanced Senior Care
Placement: 1st Place
School: Montgomery Academy

1200 Computational and Bioinformatics Sciences
Sponsored by the Broadcom Foundation

Harini Chakilam
Project Name: Using Explainable AI in Immunohistochemistry Cell Images for Cancer Diagnosis
Placement: 3rd Place
School: Alabama School of Fine Arts

Hanbo Chen
Project Name: Predicting Transcription Factor Binding Sites using Deep Learning
Placement: 2nd Place
School: Indian Springs School

Rhea Arya
Project Name: Computational Prediction of Nonabine as a Novel Cannabinoid Receptor Subtype 2 Selective Agonist
Placement: 1st Place
School: LAMP