

# 2024 Junior Division Awards

Alabama Science and Engineering Fair



## Junior Division Special Award Winners

### **Lemelson Early Inventor Prize**

*Sponsored by: The Lemelson Foundation*

This award will recognize a young inventor creating a promising solution to real-world problems. The winner will receive a certificate and an award verification letter redeemable for a \$100 cash award.

The winner is: Henry Quillen - Clark-Shaw Magnet School

### **Broadcom Coding with Commitment Award**

*Sponsored by: Broadcom Foundation*

This award will go to a student whose project emphasizes how STEM knowledge and technology come together to create solutions that protect, preserve, save, improve, or promote quality of life or nature. Awardee will receive a \$250 gift certificate and a Raspberry Pi Pico Kit.

The winner is: Tyler Broussard - John P Powell Middle School

### **100+ Women Strong Achievement Award**

*Sponsored by: 100+ Women Strong at Auburn University*

This achievement award recognizes three students that exemplify research excellence in any category. Three winners will receive a \$100 cash prize and a certificate each.

The winners are:

Malak Alabsi - Islamic Academy of Alabama

Layla Rogers - Houston Academy

Brooke May - Clark-Shaw Magnet School

### **Biological Sciences Award for Outstanding Poster in Animal and Plant Sciences**

*Sponsored by: Department of Biological Sciences at Auburn University*

This award recognizes an outstanding poster in the Animal, Plant, Computational and Bioinformatics Sciences category by a middle school student. The awardee will receive a certificate and a \$100 cash award.

The winner is: Nathaniel Truitt - Clark-Shaw Magnet School

### **Biological Sciences Award for Outstanding Poster in Medicine and Health Sciences**

*Sponsored by: Department of Biological Sciences at Auburn University*

This award recognizes an outstanding poster in the Medicine, Health & Translational Medical Sciences category by a middle school student. The awardee will receive a certificate and a \$100 cash award.

The winner is: Maryam Kanpher - Islamic Academy of Alabama

### **Chemistry and Biochemistry Award**

*Sponsored by: Department of Chemistry and Biochemistry at Auburn University*

This award is designed to recognize the top chemistry/biochemistry project.

The awardee will receive a certificate and \$100 cash award.

The winner is: Laya Gowder - Liberty Middle School

### **Geosciences Award**

*Sponsored by: Department of Geosciences at Auburn University*

This award recognizes high achievement in geoscience, geology, and geography. The winners will be presented with a certificate and \$100 cash award.

The winner is: Corbin Perry - Clark-Shaw Magnet School

### **Innovation of Robotic Systems**

*Sponsored by: Southeastern Center of Robotics Education (SCORE) at Auburn University*

This award recognizes a project that shows great promise in the use of robotic systems. The winner will receive a certificate and a \$100 cash award.

The winner is: Karson Cullen, Lachlan Owens - Dothan Prep Academy

### **Physics Award for Ingenuity and Inventiveness**

*Sponsored by: Department of Physics at Auburn University*

This award recognizes a student 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 a \$100 cash award.

The winner is: Nicholas Sabatino - Holy Spirit Catholic School

### **Garage Science Award**

*Sponsored by: Alabama Science and Engineering Fair at Auburn University*

Many scientific discoveries or engineering marvels have happened outside of a laboratory. This award celebrates a student who created an outstanding project within their home or garage. The winner will receive a certificate and \$100 cash award.

The winner is: Caleb Tran - Phillips Preparatory School

### **Society of Women in Sciences and Mathematics Achievement Award**

*Sponsored by: Society of Women in Sciences and Mathematics at Auburn University*

This award recognizes high achievement in scientific research by a student.

The winner of this award will receive a certificate and a \$100 cash award.



The winner is: Brianna Wilkinson - Holy Family School

### **Spirit of Excellence Award**

*Sponsored by: College of Sciences and Mathematics Office of Inclusion, Diversity and Equity*

This award recognizes excellence in science research by a student. The winner will receive a certificate and \$100 cash award.

The winner is: Janaia Vanterpool - Oakwood Adventist Academy (MS)

### **Talent in Mathematics and Statistics Award**

*Sponsored by: Department of Mathematics and Statistics at Auburn University*

This award recognizes a project, from any category, that demonstrates a strong mathematical and statistical analysis. The winner will receive a certificate and a \$100 cash award.

The winner is: McKenzie Ashford, Andrea Hernandez - South Girard School

### **Future Rocket Scientist Award**

*Sponsored by: Aerospace Engineering Department at Auburn University*

This award recognizes high achievement in research related to Aerospace Engineering. The winner will receive a certificate and a \$100 cash award.

The winner is: Abby Skinner - Houston Academy

### **Biosystems Engineering Award**

*Sponsored by: Biosystems Engineering Department at Auburn University*

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 \$100 cash award.

The winner is: Diya Issa - Islamic Academy of Alabama

### **Chemical Engineering Award**

*Sponsored by: Chemical Engineering Department at Auburn University*

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 \$100 cash award.

The winner is: Ritesh Babu - East Samford School

### **Electrical and Computer Engineering Award**

*Sponsored by: Department of Electrical and Computer Engineering at Auburn University*

This award is presented to an outstanding project in the Robotic Systems and Communication Technology category. The winner will receive a certificate and \$100 cash award.

The winner is: Karson Cullen, Lachlan Owens - Dothan Prep Academy



### **Future Scientist or Mathematician Award**

*Sponsored by: Dean of the College of Sciences and Mathematics at Auburn University*

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 \$100 cash award.

The winner is: Brianna Wilkinson - Holy Family School

### **Outstanding Engineering Award**

*Sponsored by: Dean of the Samuel Ginn College of Engineering at Auburn University*

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 \$100 cash award.

The winner is: Peter Korman - Holy Family School

### **Innovative Practices in Agriculture Award**

*Sponsored by: Dean of Agriculture at Auburn University*

This cash prize of \$100 recognizes innovative research related to soil management, crop production, or water resources.

The winner is: Nathaniel Truitt - Clark-Shaw Magnet School

### **Economic Impact Award**

*Sponsored by: Dean of Raymond J. Harbert College of Business at Auburn University*

This award goes to the project that best demonstrates high potential for economic impact locally or globally. This award comes with a \$100 cash prize.

The winner is: Maxwell Morgan, Rachel Shu, Alex Zhu - Northridge Middle School

### **Medical Interventions Award**

*Sponsored by: Dean of Pharmacy at Auburn University*

The Auburn University Harrison College of Pharmacy is providing a \$100 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.

The winner is: Saketh Pondugula - Auburn Jr. High School

### **Health and Wellness of Animals Award**

*Sponsored by: Dean of Veterinary Medicine at Auburn University*

The Auburn University College of Veterinary Medicine is providing a \$100 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.

The winner is: Justus Minnon - Libertas Classical (MS)



## **Junior Division Category Award Winners**

1<sup>st</sup> place receives \$100 cash prize, certificate and ASEF medal

2<sup>nd</sup> place receives \$50 cash prize, certificate and ASEF medal

3<sup>rd</sup> place receives certificate and ASEF medal

### **Category 100: Animal and Plant Sciences**

1st Place: Brianna Wilkinson - Holy Family School

2nd Place: Andrew Valeri - East Samford School

3rd Place: Nathaniel Truitt Clark- Shaw Magnet School

### **Category 200: Behavioral & Social Sciences**

1st Place: Malak Alabsi - Islamic Academy of Alabama

2nd Place: Kira LeFevre - Wetumpka Middle School

3rd Place: Tameem AL-Muntharee Islamic Academy of Alabama

### **Category 300: Cell, Molecular, Microbiology & Biochemistry**

1st Place: Jenna Mitchell, Lily Potts, Lennon Strickland - Carver MST

2nd Place: Addison Clayton, Liam Lugo - Dothan Prep Academy

3rd Place: Lacey Stinson, Sean Wilkerson - W. J. Christian K8 School

### **Category 400: Chemistry**

1st Place: Aeesha Mulani - Tuscaloosa Magnet Schools - Middle

2nd Place: Caroline Heersink - Houston Academy

3rd Place: Corbin Franklin - Phillips Preparatory School

### **Category 500: Engineering**

1st Place: Abby Skinner - Houston Academy

2nd Place: Maryam Rasheed - Islamic Academy of Alabama

3rd Place: Henry Bearden, Neil DeLaire, Aniketh Kalyan -

Tuscaloosa Magnet Schools - Middle

### **Category 600: Energy**

1st Place: Arya Adhikari - East Samford School

2nd Place: Maxwell Morgan, Rachel Shu, Alex Zhu - Northridge Middle School

3rd Place: Vendetta Muehlbauer - Islamic Academy of Alabama

### **Category 700: Earth and Environmental Sciences & Environmental Engineering**

1st Place: Sofia Huebner, Layla Waller - Tuscaloosa Magnet Schools - Middle

2nd Place: Theodore Goldsmith, Yumin Kim - East Samford School

3rd Place: Henry Quillen - Clark-Shaw Magnet School



### **Category 800: Biomedical Engineering & Biomedical and Health Sciences**

- 1st Place: Ritesh Babu - East Samford School
- 2nd Place: Shravan Balaji - Liberty Middle School
- 3rd Place: Adyson Moore - Phillips Preparatory School

### **Category 900: Physics, Astronomy & Mathematics**

- 1st Place: Jackson Powell - Providence Classical School (MS)
- 2nd Place: Jude Alabsi, Haroon Nabi - Islamic Academy of Alabama
- 3rd Place: Nicholas Sabatino - Holy Spirit Catholic School

### **Category 1100: Robotic Systems & Communication Technology**

- 1st Place: Karson Cullen, Lachlan Owens - Dothan Prep Academy
- 2nd Place: Kayden Barbour - Liberty Middle School
- 3rd Place: Connor Whitman - Hilltop Montessori School

### **Category 1200: Computational and Bioinformatics Sciences**

- 1st Place: Saketh Pondugula - Auburn Jr. High School
- 2nd Place: Violet Borchert - Clark-Shaw Magnet School

### **Thermo Fisher Scientific Junior Inventors Challenge (JIC)**

*Sponsored by: Thermo Fisher Scientific*

The Thermo Fisher Scientific Junior Inventors Challenge (JIC) is the nation's premier STEM research competition for 6th, 7th and 8th grade students. The top 10% of Junior Division students competing here today at ASEF have the honor of continuing their science fair journey by applying to compete in the Thermo Fisher Junior Inventors Challenge.

The winners are:

- Arya Adhikari - East Samford School
- Brianna Wilkinson - Holy Family School
- Abby Skinner - Houston Academy
- Jackson Powell - Providence Classical School (MS)
- Aeesha Mulani - Tuscaloosa Magnet Schools - Middle
- Jenna Mitchell, Lily Potts, Lennon Strickland - Carver MST
- Ritesh Babu - East Samford School
- Malak Alabsi - Islamic Academy of Alabama
- Saketh Pondugula - Auburn Jr. High School
- Sofia Huebner, Layla Waller - Tuscaloosa Magnet Schools - Middle



# 2024 Senior Division Awards

Alabama Science and Engineering Fair



## Senior Division Special Award Winners

### **Naval Science Award**

*Sponsored by: The Office of Naval Research*

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.

The 3 winners are:

Ashu Anand - Alabama School of Fine Arts  
Whitley Shull - Wetumpka High School  
Dakota Perry - Davidson High School

### **HudsonAlpha Creative Computation Award**

*Sponsored by: HudsonAlpha Institute*

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.

The winner is: Noah Lowry - Alabama School of Fine Arts

### **100+ Women Strong Achievement Award**

*Sponsored by: 100+ Women Strong at Auburn University*

This achievement award recognizes a student that exemplifies excellence through research in any category. The awardee will receive \$200 cash award and a certificate.

The winner is: Rhyana Mahatsente - Northridge High School

### **Biological Sciences Award for Creative Application of Biological Principles**

*Sponsored by: Department of Biological Sciences at Auburn University*

This award celebrates the creative process used in scientific discovery. The winner of this award demonstrated creative application of biological principles and will receive a certificate and \$200 cash award.

The winner is: Harrison Allen, Addison Seale, Cole Williams - Saint James School

### **Biological Sciences Award for Outstanding Poster in Cellular, Molecular, and Microbiology**

*Sponsored by: Department of Biological Sciences at Auburn University*

This award recognizes an outstanding poster in any category, which has a Cellular, Molecular, or Microbiology emphasis. The awardee will receive a certificate and a \$200 cash award.

The winner is: Olivia Hicks, Timothy Jarrell - Central High School, Phenix City

### **Chemistry and Biochemistry Award**

*Sponsored by: Department of Chemistry and Biochemistry at Auburn University*

This award is designed to recognize the top chemistry/biochemistry project.

The awardee will receive a certificate and \$200 cash award.

The winner is: Jakub Hel - Hoover High School

### **Geosciences Award**

*Sponsored by: Department of Geosciences at Auburn University*

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

The winner is: Radyn Moradkhani - Indian Springs School

### **Innovation of Robotic Systems**

*Sponsored by: Southeastern Center of Robotics Education (SCORE) at Auburn University*

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.

The winner is: Edwin Wu - The Montgomery Academy

### **Physics Award for Ingenuity and Inventiveness**

*Sponsored by: Department of Physics at Auburn University*

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.

The winner is: Leonardo Hernandez - Homewood High School

### **Garage Science Award**

*Sponsored by: Alabama Science and Engineering Fair at Auburn University*

Many scientific discoveries or engineering marvels have happened outside of a laboratory. This award celebrates a student who created an outstanding project within their home or garage. The winner will receive a certificate and \$200 cash award.

The winner is: Madison Palmore - Stanhope Elmore High School

### **Society of Women in Sciences and Mathematics Achievement Award**

*Sponsored by: Society of Women in Sciences and Mathematics at Auburn University*

This award recognizes high achievement in scientific research by a student.

The winner of this award will receive a certificate and a \$200 cash award.

The winner is: Dakota Perry - Davidson High School



### **Spirit of Excellence Award**

*Sponsored by: College of Sciences and Mathematics Office of Inclusion, Diversity and Equity*

This award recognizes excellence in science research by a student. The winner will receive a certificate and \$200 cash award.

The winner is: Vaughan Mountain - Oakwood Adventist Academy (HS)

### **Talent in Mathematics and Statistics Award**

*Sponsored by: Department of Mathematics and Statistics at Auburn University*

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.

The winner is: Radyn Moradkhani - Indian Springs School

### **Future Rocket Scientist Award**

*Sponsored by: Aerospace Engineering Department at Auburn University*

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

The winner is: Yunseo Ha - Alabama School of Math and Science

### **Biosystems Engineering Award**

*Sponsored by: Biosystems Engineering Department at Auburn University*

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.

The winner is: Madeline Borchert - Alabama School of Math and Science

### **Chemical Engineering Award**

*Sponsored by: Chemical Engineering Department at Auburn University*

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.

The winner is: Sarah Sabatino - Holy Spirit Catholic High School

### **Electrical and Computer Engineering Award**

*Sponsored by: Department of Electrical and Computer Engineering at Auburn University*

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.

The winner is: Ambrose Brown - Providence Classical School (HS)

### **Future Scientist or Mathematician Award**



*Sponsored by: Dean of the College of Sciences and Mathematics at Auburn University*

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.

The winner is: Max Lizee - Indian Springs School

### **Outstanding Engineering Award**

*Sponsored by: Dean of the Samuel Ginn College of Engineering at Auburn University*

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.

The winner is: Nathan Lee, Alice Song, Justin Yoon - Northridge High School

### **Innovative Practices in Agriculture Award**

*Sponsored by: Dean of Agriculture at Auburn University*

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

The winner is: Whitley Shull - Wetumpka High School

### **Economic Impact Award**

*Sponsored by: Dean of Raymond J. Harbert College of Business at Auburn University*

This award goes to the project that best demonstrates high potential for economic impact locally or globally. This award comes with a \$200 cash prize.

The winner is: Sam Brooks, Elliott Greene, Jacob Mullinax - Hewitt-Trussville High School

### **Medical Interventions Award**

*Sponsored by: Dean of Pharmacy at Auburn University*

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.

The winner is: Conrad Feng - Alabama School of Fine Arts

### **Health and Wellness of Animals Award**

*Sponsored by: Dean of Veterinary Medicine at Auburn University*

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.

The winner is: Annie Bao - Auburn Jr. High School



## **Senior Division Category Award Winners**

1<sup>st</sup> place receives \$200 cash prize, certificate and ASEF medal

2<sup>nd</sup> place receives \$100 cash prize, certificate and ASEF medal

3<sup>rd</sup> place receives certificate and ASEF medal

### **Category 100: Animal and Plant Sciences**

1st Place: Ibrahim Hamo, Erik Ledvina - Indian Springs School

2nd Place: Lindsey Stallworth - Alabama School of Math and Science

3rd Place: Harrison Allen, Addison Seale, Cole Williams - Saint James School

### **Category 200: Behavioral & Social Sciences**

1st Place: Rhyana Mahatsente - Northridge High School

2nd Place: Serika Patel - Alabama School of Math and Science

3rd Place: Ayesha Korin - Islamic Academy of Alabama

### **Category 300: Cell, Molecular, Microbiology & Biochemistry**

1st Place: Rhea Rastogi - LAMP High School

2nd Place: Aanchal Behara - Alabama School of Fine Arts

3rd Place: Olivia Hicks, Timothy Jarrell - Central High School, Phenix City

### **Category 400: Chemistry**

1st Place: Parker Thompson - Wetumpka High School

2nd Place: Varsha Vinoy - Alabama School of Fine Arts

3rd Place: Jason Bailey - Wetumpka High School

### **Category 500: Engineering**

1st Place: Will Bao - Auburn High School

2nd Place: John Parsons - Auburn High School

3rd Place: Jessica Shu - Auburn Jr. High School

### **Category 600: Energy**

1st Place: Yiwen Wang - Northridge High School

2nd Place: Clark Baty, Albert Chen - Alabama School of Fine Arts

### **Category 700: Earth and Environmental Sciences & Environmental Engineering**

1st Place: Max Lizée - Indian Springs School

2nd Place: Greeshma Vinoy - Alabama School of Fine Arts

3rd Place: Lillian Vilardi - Wetumpka High School

### **Category 800: Biomedical Engineering & Biomedical and Health Sciences**

1st Place: Conrad Feng - Alabama School of Fine Arts

2nd Place: Sahishnu Saha - James Clemens High School

3rd Place: Abhai Anand - Alabama School of Fine Arts



### **Category 900: Physics, Astronomy & Mathematics**

1st Place: Alexander Kim - Alabama School of Fine Arts

2nd Place: Connor Wetherbee - Providence Classical School (HS)

3rd Place: Leonardo Hernandez - Homewood High School

### **Category 1100: Robotic Systems & Communication Technology**

1st Place: Edwin Wu - The Montgomery Academy

2nd Place: Dakota Perry - Davidson High School

3rd Place: Ambrose Brown - Providence Classical School (HS)

### **Category 1200: Computational and Bioinformatics Sciences**

1st Place: Tuan Tran - Indian Springs School

2nd Place: Madeline Borchert - Alabama School of Math and Science

3rd Place: Urvi Mysore - James Clemens High School

### **Southern Research Moving Science Award**

*Sponsored by: Southern Research Institute*

This award is the highest honor presented to the most exceptional project in the science fair. The award recognizes the project that demonstrates outstanding scientific inquiry, creativity, and innovation. The project is judged based on the quality of research, scientific methodology, clarity of presentation, and overall impact. The winner of this award is deemed to have made significant contributions to the field of science through their project. This award inspires and encourages students to pursue their passion for science, fostering creativity and innovation in future generations. The recipient of this award is recognized as a leading scientist of tomorrow with limitless potential for advancing the frontiers of scientific discovery. The winner will receive a certificate and cash prize of \$500.

The winner is: Will Bao - Auburn High School

### **Regeneron ISEF Finalist**

*Sponsored by: Office of the Provost at Auburn University*

The Auburn University Office of the Provost is proud to support the 3 ISEF Finalists from the Alabama Science and Engineering Fair. Each Finalist will receive a \$250 cash prize, a certificate of accomplishment, and a trophy recognizing their significant accomplishments thus far in the 2024 Regeneron Science and Engineering Fair season.



## **The ISEF Finalists at the Alabama Science and Engineering Fair:**

**Will Bao** - Auburn High School

Machine-Learning-Driven Discovery of Novel Acoustic Metamaterials for Broadband Noise Mitigation

**Rhyana Mahatsente** - Northridge High School

Voxel-Based Morphometry and Time-Frequency Analysis of Epilepsy for Detection of Ictal Impaired Consciousness

**Max Lizee** - Indian Springs School

Using Machine Learning to Predict Sanitary Sewer Overflows

Congratulations to all ASEF Participants!

