

UAB-CORD CARSEF Winners

March 4, 2017

CARSEF TOP HONORS & INTEL WINNERS

Tyler Huang

12th Grade

Alabama School of Fine Arts

Project Title – *Central Nervous System Sensitization is Associated with Chronic Pain in HIV*

Richard Fu & Danielle Wu

11th Grade

Vestavia Hills High School & Indian Springs School

Project Title – *Probiotic Metabolites Promote Anti-inflammatory Function of Immune Cells*

Margaret Knight

12th Grade

Alabama School of Fine Arts

Project Title – *Impact of Ocean Acidification on the Relative Fitness & Interspecies Interaction of Picophytoplankton*

Kenneth Jiao

11th Grade

Indian Springs School

Project Title – *Retain CHD7, an Epigenetic Regulator in the Nucleus to Combat Breast Cancer Metastasis*

CARSEF Category Winners

Senior Division

BEHAVIORAL AND SOCIAL SCIENCES

1st Place

Tyler Huang

12th Grade

Alabama School of Fine Arts

Project Title – *Central Nervous System Sensation is Associated with Chronic Pain in HIV*

2nd Place

Olumeka Mejeidu

12th Grade

Alabama School of Fine Arts

Project Title – *The Biopsychosocial Model of Sexual Orientation*

3rd Place

Matthew Zhu

12th Grade

Alabama School of Fine Arts

Project Title – *Influence of Anti-Bullying Media on the Passivity of Cyber Bystanders*

Honorable Mention

Virginia Gray

9th Grade

Indian Springs School

Project Title – *Sequential or Simultaneous Testing the Reliability of Photo Lineups*

Honorable Mention

Katherine Wilson, Eric Cheng & Emmanuel Ashford

10th Grade, 10th Grade, 9th Grade

Alabama School of Fine Arts

Project Title – *The Effect of Physical Appearance and Academic Achievement on Student Perceptions of Competence*

Honorable Mention

Jamie Hopper, Deandrae Fuller & William Vance

12th Grade

Moody High School

Project Title – *The Effects of Mild Aerobic Exercise on Short Term Memory*

BIOLOGY

1st Place

Alex Ledvina & Miles Robinson

9th Grade

Indian Springs School

Project Title – *Morphological and Population Changes During Reproductive Season*

2nd Place

Stefan Sample, Blake Cole & Wenhui Zou

12th Grade

Moody High School

Project Title – *The Effect on the Rate of Limb Regeneration of Protoreaster nodusus Through Introduction of Regenerative Enzymes*

3rd Place

Dallas Blackwell

10th Grade

Jefferson County International Bacculaureate

Project Title – *What Affect Does Food Wrappings Leave on the Spoilage of Food?*

Honorable Mention

Blayne Gunnells

10th Grade

Pell City High School

Project Title – *Do Bigger Fishing Lures Produce Bigger Bass?*

Honorable Mention

Ben Mathis

9th Grade

Indian Springs School

Project Title – *Mud Watt...What?*

Honorable Mention

William Atkinson, John Robles & Ethan Olive

12th Grade, 12th Grade, 11th Grade

Moody High School

Project Title – *Testing the Rate of Growth of E. coli on Different Transition Metals*

CHEMISTRY

1st Place

Karthik Sadanand

12th Grade

Alabama School of Fine Arts

Project Title – *ClpP: A Novel Target for Antibacterial Drug Discovery*

2nd Place

Varsha Sridhar

12th Grade

Jefferson County International Baccalaureate

Project Title – *Generalization of the Marcus Model for in vitro Electron Transfer*

3rd Place

Evan Dunbar & Aidan Meador-Woodruff

9th Grade

Indian Springs School

Project Title – *The Effects of Various Micronutrients on E. coli*

Honorable Mention

Labdhi Mehta

9th Grade

Indian Springs School

Project Title – *A Potential Treatment for the Absorption of Arsenic from Contaminated Water Using Spent Coffee Grounds in a Biosand Filter*

Honorable Mention

Kaleigh Daffron

11th Grade

Pell City High School

Project Title – *The Adventures of Salt and Sugar: Hot, Cold, and Room Temperatures*

Honorable Mention

Raegan Adams

11th Grade

Jefferson County International Baccalaureate

Project Title – *The Effectiveness of Calorimeters Using Hess's Law*

ENERGY AND TRANSPORTATION

1st Place

Samantha Sinak

12th Grade

Jefferson County International Baccalaureate

Project Title – *The Effect of Various Materials on the Conductivity of a Thermoelectric Generator*

2nd Place

Mackenzie Dotson

12th Grade

Hewitt-Trussville High School

Project Title – *Voice Commended Motorized Wheelchair for Quadriplegic Individuals*

3rd Place

Bela Patel

11th Grade

Indian Springs School

Project Title – *Emerging Energy of the Future! An Organic Approach*

Honorable Mention

Miguel Gonzalez

10th Grade

Jefferson County International Baccalaureate

Project title – *Charging Times of Smartphones in Different Temperature Conditions*

Honorable Mention

Tristan Smith

11th Grade

Pell City High School

Project title – *Magnetic Levitation*

ENGINEERING

1st Place

Christopher Fox

12th Grade

Alabama School of Fine Arts

Project Title – *Differences in Liquid Penetration Lengths*

2nd Place

Evan Morse

12th Grade

Hewitt-Trussville High School

Project Title – *Biodegradable Hooks*

3rd Place

Benjamin Standaert & Ryan Standaert

9th Grade

Indian Springs School

Project Title – *Canine Fitness*

Honorable Mention

Dylan Higgs

12th Grade

Alabama School of Fine Arts

Project Title – *A Safer and More Efficient Way to Clean a Residential Gutter*

Honorable Mention

Amanda Carpenter

12th Grade

Moody High School

Project Title – *All About That Bass: Extinguishing Fire with Low Frequency Sound Waves*

Honorable Mention

Devin Tanksley

12th Grade

Ramsey High School

Project Title – *A Personal Device to Assist the Deaf with Effective Communication*

ENVIRONMENTAL AND EARTH SCIENCES

1st Place

Margaret Knight

12th Grade

Alabama School of Fine Arts

Project Title – *Impact of Ocean Acidification on the Relative Fitness and Interspecies Interactions of Picophytoplankton*

2nd Place

Wamda Eltoun

10th Grade

Islamic Academy of Alabama

Project Title – *Cinnamon Acts as a Rooting Hormone: Hydrophobic or Hydrophilic*

3rd Place

Zo Shauku

10th Grade

Heritage Academy

Project Title – *The Effects of Exposure to Electromagnetic Radiation*

Honorable Mention

Emma Wang

9th Grade

Indian Springs School

Project Title – *Effectiveness of Algae Beads of Carbon Dioxide Removal from Car Emissions*

Honorable Mention

Tomeka Frieson

12th Grade

Jefferson County International Baccalaureate

Project Title – *The Effect of Burned Soil on Lolium perenne and Soil Properties*

Honorable Mention

Ellie Wright

11th Grade

Jefferson County International Baccalaureate

Project Title – *Comparison Study of Water Quality and Economic Position*

MATHEMATICS AND COMPUTER SCIENCES

1st Place

Amrita Lakhnarpal

10th Grade

Altamont School

Project Title – *Meta-Analysis of microarray Profiling Data to Investigate the Effect of Chemotherapeutic on Gene Expression in Cancer Cells*

2nd Place

Kayleigh Alexander

12th Grade

Alabama School of Fine Arts

Project Title – *Verifying Loop Termination of Java “for” Loops*

3rd Place

Summer Vo

12th Grade

Alabama School of Fine Arts

Project Title – *The Robustness of Voice Biometrics Systems and Algorithms Against Attacks*

Honorable Mention

Mitchell Peterson & Will Jetter

12th Grade

Hewitt-Trussville High School

Project Title – *Augmentative Messaging Systems for ALS Patients*

Honorable Mention

Taimur Ghani

12th Grade

Alabama School of Fine Arts

Project Title – *CharacterCreator: An Educational 3D Modeling Application*

Honorable Mention

Blayde Dill

12th Grade

Alabama School of Fine Arts

Project Title – *Developing a Block-Based Language for the Ada-Fruit Circuit Playground*

MEDICINE AND HEALTH SCIENCES

1st Place

Kenneth Jiao

11th Grade

Indian Springs School

Project Title – *Restain CHD7, an Epigenetic Regulator, in the Nucleus to Combat Breast Cancer Metastasis*

2nd Place

Hemant Srivastava

12th Grade

Alabama School of Fine Arts

Project Title – *ABT263 (Navitoclax) and the IPF-Treatment Drugs for a Healthier Aging*

3rd Place

Nicole Naylor

12th Grade

Alabama School of Math and Science

Project Title – *Selective Ablation of Dehydrolipoyl Diphosphate Synthase (Dhdds) Expression in RPE Decreases Acuity, Sensitivity and Photoresponse of Photoreceptors*

Honorable Mention

Archana Yarlagadda

11th Grade

Altamont School

Project Title – *Effect of Progressive Resistance Exercise Training*

Honorable Mention

Julia Goldberg

9th Grade

Indian Springs School

Project Title – *Rapid Diagnosis of Kidney Cancer During Surgery*

Honorable Mention

A'Zhariya Ellis and Eliza Maddox

10th Grade, 9th Grade

Alabama School of Fine Arts

Project Title – *The Effect of Ginseng on Cognitive Abilities and its Link to Alzheimer's*

PHYSICAL SCIENCES

1st Place

Eli Getman

12th Grade

Alabama School of Fine Arts

Project Title – *Kinetic Monte Carlo Simulation of Ionic Diffusion in II-VI Semiconductors*

2nd Place

Noel Dudeck

12th Grade

Alabama School of Fine Arts

Project Title – *Examining the Polymorphs of Single Crystal Paracetamol at High Pressure*

3rd Place

Deven Patel

9th Grade

Indian Springs School

Project Title – *Long Distance Wireless Transfer of Energy for Use in Space*

Honorable Mention

Jazzlyn Miller

12th Grade

Alabama School of Fine Arts

Project Title – *Assessing and Affordable Analytical Platform for High School Research*

Honorable Mention

Mike Jiang

9th Grade

Indian Springs School

Project Title – *The Effect of Wavelength on Solar Cell Efficiency*

Honorable Mention

Truitt Bridgewater

9th Grade

Pell City High School

Project Title – *Comparing and Contrasting Sound Waves to Water Waves*

CARSEF Category Winners

Junior Division

BEHAVIORAL AND SOCIAL SCIENCES

1st Place

Willa Akins

5th Grade

Hilltop Montessori School

Project Title – *Bunny Bets and Chinchilla Challenges – Confirming Bias*

2nd Place

Mohammad Ashouri

7th Grade

Islamic Academy of Alabama

Project Title – *The Myth of Multitasking*

3rd Place

Sura Ahmed

7th Grade

Islamic Academy of Alabama

Project Title – *Effect of Sleep Duration on Memory*

Honorable Mention

Lina Jabr

7th Grade

Islamic Academy of Alabama

Project Title – *Bad Habits Die Hard*

Honorable Mention

Josh Dobelbower

8th Grade

Indian Springs School

Project Title – *Can Different Rodents Think Clearly*

Honorable Mention

Jenna Mekdad

8th Grade

Islamic Academy of Alabama

Project Title – *Less Stress Better Tests*

BIOLOGY

1st Place

Benjamin Appling

8th Grade

Indian Springs School

Project Title – *Escherichia Coli Contamination of Feline Water Bowls*

2nd Place

Omar Jasser

6th Grade

Islamic Academy of Alabama

Project Title – *Curing Funky Feet*

3rd Place

Isadola Steinman

7th Grade

Altamont School

Project Title – *Phinding Phages: Searching for Viruses in the Environment*

Honorable Mention

Benjamin Barnett

6th Grade

Huffman Middle School

Project Title – *Osmosis in Eggs*

Honorable Mention

Taer Lamya

7th Grade

Islamic Academy of Alabama

Project Title – *Aloe Vera vs. Mold*

Honorable Mention

Rand Ashour

6th Grade

Islamic Academy of Alabama

Project Title – *Need a New Color?*

CHEMISTRY

1st Place

Yasmeen Almatubsi

8th Grade

Islamic Academy of Alabama

Project Title – *Got Any Antioxidants?*

2nd Place

Amro Nasser

6th Grade

Huffman Middle School

Project Title – *Pants on Fire*

3rd Place

Ishmael Mekdad

6th Grade

Islamic Academy of Alabama

Project Title – *Built of Iron*

Honorable Mention

Malak Alamari

6th Grade

Islamic Academy of Alabama

Project Title – *Smile Bright*

Honorable Mention

William Marshall

8th Grade

Indian Springs School

Project Title – *The Concentration and Dispersion Effects of Food Coloring in Acids and Bases*

Honorable Mention

Sarah Mekdad

6th Grade

Islamic Academy of Alabama

Project Title – *Vitamin C Under Pressure*

ENERGY AND TRANSPORTATION

1st Place

Obada Aishah

6th Grade

Islamic Academy of Alabama

Project Title – *Peels for Wheels*

2nd Place

Kyle Kaplan

8th Grade

Duran Junior High North

Project Title – *How Does Aerodynamics Affect a Falling Object?*

3rd Place

Amer Mohammed

6th Grade

Islamic Academy of Alabama

Project Title – *From Trash to Gas*

Honorable Mention

Andrew Smith, Jackson Widdell & Dylan Weiss

8th Grade

Calera Middle School

Project Title – *The Engine to Fit It All*

ENGINEERING

1st Place

Shurooq Elbahrawi

8th Grade

Islamic Academy of Alabama

Project Title – *Making Bioplastic*

2nd Place

Liam Falconer

7th Grade

Hilltop Montessori School

Project Title – *Knot What I Expected*

3rd Place

Ramy Mansur

7th Grade

Islamic Academy of Alabama

Project Title – *Wood vs. Acid Rain*

Honorable Mention

Suhaib Aishah

7th Grade

Islamic Academy of Alabama

Project Title – *Defying Gravity*

Honorable Mention

Wesley Simpson

8th Grade

Indian Springs School

Project Title – *Which of the Following Airflow Setups Better Affect Cooling*

Honorable Mention

Robert Henderson

6th Grade

Evangel Homeschool

Project Title – *Compressed Air*

ENVIRONMENTAL AND EARTH SCIENCES

1st Place

Mustafa Eltoum

7th Grade

Islamic Academy of Alabama

Project Title – *Drip vs. Automatic Irrigation*

2nd Place

Reid Cato

8th Grade

Agape Academy

Project Title – *Ice Melters*

3rd Place

G.G. Hackett

8th Grade

Nichols-Lawson Middle School

Project Title – *What's In Your Dirt?*

Honorable Mention

Ayman Mahdi

6th Grade

Islamic Academy of Alabama

Project Title – *The Yeast Effect*

Honorable Mention

Mosa Elhusari

8th Grade

Islamic Academy of Alabama

Project Title – *The Purest Drink*

Honorable Mention

Maggie Richards & Ellie Sabel

8th Grade

Indian Springs School

Project Title – *The Effects of Carbonated Water on Different Types of Plants*

MATHEMATICS AND COMPUTER SCIENCES

1st Place

Talal Naser

7th Grade

Islamic Academy of Alabama
Project Title – *Raising the Bars*

2nd Place

Arsalan Ahmad

8th Grade

Islamic Academy of Alabama
Project Title – *Let's Map This Out*

3rd Place

Elamin Elimam

8th Grade

Islamic Academy of Alabama
Project Title – *Don't Feed the Phish*

MEDICINE AND HEALTH SCIENCES

1st Place

Ola Eloubidi

7th Grade

Islamic Academy of Alabama

Project Title – *The Natural Synthetic Myth*

2nd Place

Hooper Markert

8th Grade

Indian Springs School

Project Title – *Keep Calm and Test Your Glucose*

3rd Place

Widad Eljishi

6th Grade

Islamic Academy of Alabama

Project Title – *Poisonous Lipstick?*

Honorable Mention

Sarah Jasser

6th Grade

Islamic Academy of Alabama

Project Title – *Dissolving Kidney Stones*

Honorable Mention

Ahmad Osama Kanpher

6th Grade

Islamic Academy of Alabama

Project Title – *Go Go Almond*

Honorable Mention

Aidan Wallace

7th Grade

Everest Academy

Project Title – *Disparities in Cervical Cancer Outcomes in Alabama*

PHYSICAL SCIENCES

1st Place

Jean-Paul Doucet & Sawyer Impello

8th Grade

Indian Springs School

Project Title – *Blast Off*

2nd Place

Parker Holmes

8th Grade

Duran Junior High North

Project Title – *What is Pop Time and How Does it Occur?*

3rd Place

Alex Forbes

8th Grade

Indian Springs School

Project Title – *Armor Angle vs. Projectile*

Honorable Mention

Amelia Beland

5th Grade

Our Lady of the Valley

Project Title – *Scoping Out Static*

Honorable Mention

Salah Karassi

8th Grade

Islamic Academy of Alabama

Project Title – *Magnets: Size vs. Strength*

Honorable Mention

Briyanna Brownlee

6th Grade

W.J. Christian

Project Title – *Circus Circuitry Using Homopolar Motors*