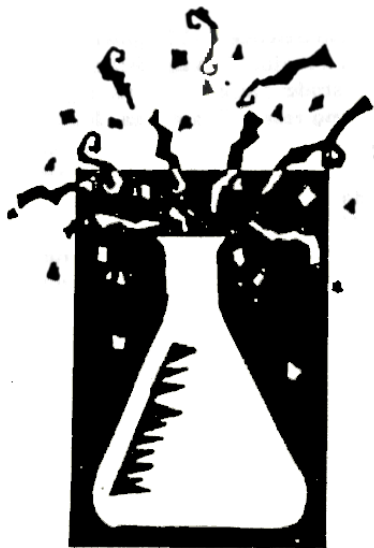


# THE 61<sup>st</sup> ANNUAL OZARKS SCIENCE & ENGINEERING FAIR

VIRTUAL FAIR  
MISSOURI STATE UNIVERSITY

March 1 through March 12, 2021



## 2021 WINNERS

Sponsored By:

Missouri State University – College of Natural & Applied Sciences  
Missouri State University Foundation  
Associated Electric Cooperative, Inc.  
Schneider Foundation  
Cheryl & Rodney Wrinkle



## **VIRTUAL FAIR FACILITATORS**

MICHELLE NORNGREN  
EXECUTIVE DIRECTOR  
OZARKS SCIENCE & ENGINEERING FAIR

BILL ALTER  
CASSANDRA CLARK  
SAMANTHA COOPER  
SUE MCCRORY  
TOM TOMASI  
DENISE VINTON



## **STEERING COMMITTEE MEMBERS**

EXECUTIVE DIRECTOR:  
DISPLAY & SAFETY:  
ELEMENTARY FAIR:  
PLACEMENT AWARDS:  
SPECIAL AWARDS:  
VOLUNTEERS:  
WEBMASTERS:  
SCIENCE DAY:  
SOCIAL NETWORKING:

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KEN MCCRORY  
LACEY GEIGER  
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DENISE VINTON  
SUE MCCRORY  
SUE MCCRORY  
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## **SCIENTIFIC REVIEW COMMITTEE**

DR. TOM TOMASI, CHAIR  
DR. PAUL SCHWEIGER, MICROBIOLOGY  
BRIAN HIGH, CHEMISTRY  
DR. CARLY YADON, HUMAN BEHAVIOR  
DR. MICHAEL PFANDER, DVM, NONHUMAN VERTEBRATES



## **MAJOR SPONSORS**

MISSOURI STATE UNIVERSITY – COLLEGE OF NATURAL & APPLIED  
SCIENCES

MISSOURI STATE UNIVERSITY FOUNDATION

ASSOCIATED ELECTRIC COOPERATIVE, INC.

SCHNEIDER FOUNDATION

CHERYL AND RODNEY WRINKLE

## **2021 AWARDS AND SPONSORS**

AMERICAN CHEMICAL SOCIETY – OZARKS  
CHAPTER  
AMERICAN METEOROLOGICAL SOCIETY  
AMERICAN PSYCHOLOGICAL  
ASSOCIATION  
AMERICAN SOCIETY OF MAMMALOGISTS  
ASM MATERIALS EDUCATION  
FOUNDATION  
ASSOCIATION FOR WOMEN  
GEOSCIENTISTS  
THE LAWRENCE E. BANKS, JR. MEMORIAL  
AWARD  
THE MILES K BARNHART MEMORIAL  
AWARD  
BROADCOM MASTERS  
DEPARTMENT OF DEFENSE STEM  
LEADERSHIP PRIZE  
THE STAN HOWELL MEMORIAL BOTANY  
AWARD  
THE LEMELSON EARLY INVENTOR PRIZE  
THE LISA REECE MEMORIAL AWARD  
MISSOURI STATE UNIVERSITY  
MISSOURI STATE UNIVERSITY COLLEGE OF  
NATURAL & APPLIED SCIENCES  
MISSOURI STATE UNIVERSITY  
DEPARTMENT OF BIOLOGY  
THE LOU & NADINE MOORE MEMORIAL  
AWARD

MU ALPHA THETA  
NATIONAL AERONAUTICS AND SPACE  
ADMINISTRATION  
NATIONAL OCEANIC & ATMOSPHERIC  
ADMINISTRATION  
THE OZARKS SCIENCE & ENGINEERING  
FAIR  
THE MARY JEAN PLASTER MEMORIAL  
AWARD  
THE ROBERT W. PLASTER MEMORIAL  
AWARD  
REGENERON ISEF AWARD  
RICOH CORPORATION  
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SOCIETY FOR IN VITRO BIOLOGY  
THE SYLVIA SPEAR MEMORIAL AWARD  
THE JAMES K. TICE MEMORIAL TEACHER  
AWARD  
UNITED STATES AIR FORCE  
UNITED STATES OFFICE OF NAVAL  
RESEARCH  
USAID SCIENCE CHAMPION AWARD  
U.S. METRIC ASSOCIATION  
U.S. STOCKHOLM WATER PRIZE  
WOMEN IN SCIENCE  
YALE SCIENCE & ENGINEERING  
ASSOCIATION

## **SENIOR DIVISION GRAND PRIZE WINNERS & ALTERNATES**

(Grand Prize Awards Sponsored by: Cheryl and Rodney Wrinkle, Schneider Foundation & Associated Electric Cooperative, Inc. - includes plaques & entry to the virtual Regeneron International Science & Engineering Fair for the Grand Prize Winners.)

### **GRAND PRIZE**

Jillian Bernabe  
The Synthesis of Au-Fe<sub>3</sub>O<sub>4</sub> Nanoparticles for the Purpose of  
Nonenzymatic Dopamine Sensing  
Camdenton High School  
Chris Reeves

### **GRAND PRIZE**

Allison Drennan  
Evaluating Cinnamaldehyde as an Antibacterial Agent in a  
Produce Wash for Leafy Greens  
Lebanon High School  
Ryne Emerick

### **1st ALTERNATE**

Emily Willis  
Determining the Potential use of Light Scattering to Enhance  
Vertically Cultured Algal Biofuel Synthesis  
Camdenton High School  
Chris Reeves

### **2nd ALTERNATE**

Maya Irvine  
The Role of the Phytotoxic Flavone Apigenin in the Allelopathic  
Pathway of the Invasive Plant Species *Lonicera maackii*  
Camdenton High School  
Chris Reeves

## **JUNIOR DIVISION GRAND PRIZE WINNERS**

(Plaque to each Junior Grand Prize Winner & Teacher)

### **GRAND PRIZE**

Rishi Janakiraman  
The Effect of Handedness on Ambidexterity  
Scholars at Central  
Denise Vinton

### **ALTERNATE**

Sohum Dua  
Algae's Effect on Air Quality  
Scholars at Central  
Denise Vinton

# THE 2021 JUNIOR DIVISION



# PLACEMENT AWARD WINNERS!

# JUNIOR DIVISION PLACEMENT AWARDS

## BEHAVIORAL AND SOCIAL SCIENCES

- 1<sup>st</sup> Place: Rishi Janakiraman  
The Effect of Handedness  
on Ambidexterity  
Denise Vinton  
Scholars at Central
- 2<sup>nd</sup> Place: Larry Quade  
Life Saving Doodad: Create  
an EpiPen Reminder  
Tim Mulford  
Camdenton Middle School
- 3<sup>rd</sup> Place: Emma Lewis  
The Effect of Biological Sex  
on Facial Recognition  
Denise Vinton  
Scholars at Central
- 4<sup>th</sup> Place: Jazzalyn Coffelt  
Are Teenagers Ever Really  
Socially Distanced?  
Tim Mulford  
Camdenton Middle School

## BOTANY

- 1<sup>st</sup> Place: Keegan Dowdney  
The Mischievous Mold  
Amy Larrington  
Camdenton Middle School
- 2<sup>nd</sup> Place: Gavin Luo  
Radical Radishes  
Denise Vinton  
Scholars at Central
- 3<sup>rd</sup> Place: Jake Eckstein  
To Grow or Not to Grow  
Denise Vinton  
Scholars at Central
- 4<sup>th</sup> Place: Wilson Johnson  
Keegan Adams  
Soiled Soil: The Effect of  
Styrofoam on Basil  
Denise Vinton  
Scholars at Central

## CHEMISTRY

- 1<sup>st</sup> Place: Ben Garrett  
Water You Think About This?  
Denise Vinton  
Scholars at Central

## CHEMISTRY (continued)

- 2<sup>nd</sup> Place: Zain Saquer  
Calcium Content in Bones  
Denise Vinton  
Scholars at Central
- Matthew Monteith  
Pop Pop Fizz Fizz: The Scent  
of Bath Bombs and Their  
Dissolve Time  
Lindsay Paulsell  
St. Agnes
- 3<sup>rd</sup> Place: Christopher Todd  
Irregular Ice  
Lindsay Paulsell  
St. Agnes
- Serenity Buttram  
Brilynn Joyce  
Crystal, Why You So Salty?  
Keaton Patterson  
Marshfield Junior High
- 4<sup>th</sup> Place: Brayden Hicks  
Lily Johnson  
Frozone Drank My Water  
Keaton Patterson  
Marshfield Junior High
- Luke Butler  
Keep Your Cool  
Lindsay Paulsell  
St. Agnes

## ENGINEERING

- 1<sup>st</sup> Place: Grace Law  
Horsing Around with Hay:  
How a Different Structure  
Helps Prevent Mold on Hay  
Tim Mulford  
Camdenton Middle School
- 2<sup>nd</sup> Place: Kyle Rues  
Building with a Boom  
Lindsay Paulsell  
St. Agnes
- Cash Bright  
Dawson Cox  
Hydraulic Handshake  
Aaron Tillman  
Marshfield Junior High

## ENGINEERING (continued)

- 3<sup>rd</sup> Place: Eads Hinrichs  
3, 2, 1, Go! Lifting  
Characteristics of a Drone  
with Suspended Masses  
Lindsay Paulsell  
St. Agnes
- Joseph Meek  
Flying High: Effects of a Fin  
on a Stomp Rocket  
Lindsay Paulsell  
St. Agnes
- 4<sup>th</sup> Place: Kaitlyn Riggins  
Breanna Hyder  
The Celestial Star Charge  
Aaron Tillman  
Marshfield Junior High
- Tanner Davidson  
Tegen Curley  
Automatic Dog Feeder  
Keaton Patterson  
Marshfield Junior High

## ENVIRONMENTAL

- 1<sup>st</sup> Place: Sohum Dua  
Algae's Effect on Air Quality  
Denise Vinton  
Central Scholars
- 2<sup>nd</sup> Place: Keith Bass  
A Plant Odyssey: Using  
Plants to Solve  
Overpopulation  
Amy Larrington  
Camdenton Middle School
- 3<sup>rd</sup> Place: Kassandra Brown  
Should We Throw or Grow?  
Reuse, Recycle, Repurpose  
Tim Mulford  
Camdenton Middle School
- 4<sup>th</sup> Place: Hunter Johnson  
Is Bamboo Only for Pandas?  
Tim Mulford  
Camdenton Middle School

# JUNIOR DIVISION PLACEMENT AWARDS

## MEDICINE & HEALTH

1<sup>st</sup> Place: Erica Fernandez  
Are six Feet Enough? The  
Effect on the Distance of a  
Single Cough  
Denise Vinton  
Scholars at Central

2<sup>nd</sup> Place: Paige Bodnar  
Effectiveness of Different  
Fabrics for Face Masks  
Denise Vinton  
Scholars at Central

3<sup>rd</sup> Place: Delaney Stanfield  
Smoking? You Must be  
Joking  
Amy Larrington  
Camdenton Middle School

4<sup>th</sup> Place: Sarah Han  
Plant Essentials  
Lindsay Paulsell  
St. Agnes

## MICROBIOLOGY

1<sup>st</sup> Place: Ethan Johnson  
Fungi Fun  
Denise Vinton  
Scholars at Central

2<sup>nd</sup> Place: Chase Brodeur  
The Effect of Annealing  
Temperature on  
SARS-CoV-2 Nucleocapsid  
Gene Detection  
Denise Vinton  
Scholars at Central

3<sup>rd</sup> Place: Nicole Westhusing  
Time to Say Goodbye  
to *E. coli*  
Tim Mulford  
Camdenton Middle School

## PHYSICS

1<sup>st</sup> Place: Leah Martin  
Soil Moisture and Electrical  
Conductivity  
Rob Powers  
The Summit Prep

## PHYSICS (continued)

2<sup>nd</sup> Place: Grant Hudson  
The Effect of Sound on  
Particle Vibration  
Denise Vinton  
Scholars at Central

Jack Wegrzyn  
Pounding Sound  
Denise Vinton  
Scholars at Central

3<sup>rd</sup> Place: J.J. Myers  
Shocking Slide Discoveries:  
Static Electricity and  
Playground Slides  
Denise Vinton  
Scholars at Central

Lael Kennedy  
Pendulum Picasso  
Denise Vinton  
Scholars at Central

4<sup>th</sup> Place: Bijayesh Pradhan  
Breaking Down  
Breakdancing  
Denise Vinton  
Scholars at Central

Bella Goodfriend  
The Effect of Material on the  
Probability of Dice Rolls  
Denise Vinton  
Scholars at Central

## ZOOLOGY

1<sup>st</sup> Place: Madeline O'Toole  
Meandering Mice  
Denise Vinton  
Central Scholars

2<sup>nd</sup> Place: George Wood  
The Effect of the  
Environment on Ants  
Denise Vinton  
Central Scholars

3<sup>rd</sup> Place: Zella Schopp-Gosnell  
Cat vs. Dog  
Lindsay Paulsell  
St. Agnes

# THE 2021 SENIOR DIVISION



# PLACEMENT AWARD WINNERS!



# SENIOR DIVISION PLACEMENT AWARDS

## BEHAVIORAL AND SOCIAL SCIENCES

- 1<sup>st</sup> Place: Austin Barber  
Aquatic Microfiber and the Role in Agonistic Behavior of *Procambarus clarkii*  
Ryne Emerick  
Lebanon High School
- 2<sup>nd</sup> Place: McKinley Sanders  
The Effect of Priming on Rational and Irrational Responses  
Tabitha Shaver  
Hartville High School
- 3<sup>rd</sup> Place: Juan Robles  
The Effect of Colors on Decision Making  
Tabitha Shaver  
Hartville High School

## BOTANY

- 1<sup>st</sup> Place: Maya Irvine  
The Role of the Phytotoxic Flavone Apigenin in the Allelopathic Pathway of the Invasive Plant Species *Lonicera maackii*  
Chris Reeves  
Camdenton High School
- 2<sup>nd</sup> Place: Grace Johnson  
Using Arbuscular Mycorrhizal Fungi to Inhibit N Uptake in *Cirsium arvense*  
Ryne Emerick  
Lebanon High School
- 3<sup>rd</sup> Place: Abby Shattuck, Athena Sauia, and Roselynn Mullihan  
Natural Plant Growth vs. Electro-Boost Plant Growth  
Alicia Daniels  
Crocker High School
- 4<sup>th</sup> Place: Javin Cobb, Abby Harrison, and Ivy Harrison  
Hydroponic Versus traditional Plant Growth  
Alicia Daniels  
Crocker High School

## CHEMISTRY

- 1<sup>st</sup> Place: Jacob Ballard  
The Effects of Marinades on the Maillard Reaction  
Tabitha Shaver  
Hartville High School
- 2<sup>nd</sup> Place: Abby Moseley  
The Effects of Milk Type on Casein Plastic  
Tabitha Shaver  
Hartville High School
- 3<sup>rd</sup> Place: Angelea Branstetter  
The Effects if Ingredients on the Structure of Cookies  
Tabitha Shaver  
Hartville High School

## ENGINEERING

- 1<sup>st</sup> Place: Irelyn Meckley  
A Biomimetic Airfoil to Improve Acoustic Silencing and the Aerodynamic Capabilities of Micro Aerial Vehicles  
Chris Reeves  
Camdenton High School
- 2<sup>nd</sup> Place: Johnathon Westhusing  
The Implementation of Hovercrafts into the Trucking Industry to Increase the Efficiency of the Loading and Unloading Process of Semi-Truck Trailers  
Chris Reeves  
Camdenton High School
- 3<sup>rd</sup> Place: Arya Eledath, Manu Eledath  
OriSemi: A Collapsible Semi-Truck Based on Origami  
Kristy Gilmore  
Greenwood Lab School
- 4<sup>th</sup> Place: Scott Muff  
Development of a Wire Arc Additive Manufacturing Extruder for Inexpensive High Quality Metal 3D Printed Parts  
Chris Reeves  
Camdenton High School

## ENVIRONMENTAL

- 1<sup>st</sup> Place: Emma Price  
Implementation of Human Urine and Cellulose Nanofibers as a Visual Arsenic Assay  
Chris Reeves  
Camdenton High School
- 2<sup>nd</sup> Place: Kierstin Vaughan  
The Effect of Pharmaceutical Disposal in Aquatic Environments on *Danio rerio* Embryological Survival and Development  
Peggy Veatch  
Eldon High School
- 3<sup>rd</sup> Place: Lisa Carpenter  
Concentration Toxicity Impact of Microsynthetic Materials on Filtration Behavior of Invasive *Corbicula fluminea*  
Tara Bonebrake  
Greenwood Lab School
- 4<sup>th</sup> Place: Clemmie Taylor  
The Effects of Oils on the Removal of Microplastics in Tap Water  
Tabitha Shaver  
Hartville High School

## MEDICINE & HEALTH

- 1<sup>st</sup> Place: Jillian Bernabe  
The Synthesis of Au-Fe<sub>3</sub>O<sub>4</sub> Nanoparticles for the Purpose of Nonenzymatic Dopamine Sensing  
Chris Reeves  
Camdenton High School
- 2<sup>nd</sup> Place: Aidan Dowdney  
The Development of a Portable Disinfection/Air Purification Device Using 254 nm UVC Light  
Chris Reeves  
Camdenton High School
- 3<sup>rd</sup> Place: Isaac Boyer  
How Melatonin Affects Deep Sleep  
Tabitha Shaver  
Hartville High School

# SENIOR DIVISION PLACEMENT AWARDS

## MEDICINE & HEALTH (continued)

4<sup>th</sup> Place: Kylie Harris  
How Food Groups Affect  
Migraines  
Tabitha Shaver  
Hartville High School

## MICROBIOLOGY

1<sup>st</sup> Place: Allison Drennan  
Evaluating Cinnamaldehyde  
as an Antibacterial Agent  
in a Produce Wash for  
Leafy Greens  
Ryne Emerick  
Lebanon High School

2<sup>nd</sup> Place: Nicholas Faiferlick  
Transformation of Marine  
Bacteria with *Ideonella*  
*sakaiensis* Plasmid for  
Enhanced Biodegradation of  
Polyethylene Terephthalate  
Chris Reeves  
Camdenton High School

3<sup>rd</sup> Place: Kierstin Wright  
The Development of a Zinc  
Oxide and Bismuth-Based  
Cellulose Nanocomposite as  
a Mold Preventative for  
Agriculture Feed Bags  
Chris Reeves  
Camdenton High School

4<sup>th</sup> Place: Raquel Potteiger  
The Development of a  
Consumer-Based Visual  
Colorimetric Bioindicator for  
the Detection of *Escherichia*  
*coli* in Packaged Meats and  
Water Source  
Chris Reeves  
Camdenton High School

## PHYSICS

1<sup>st</sup> Place: Emily Willis  
Determining the Potential Use  
of Light Scattering to  
Enhance Vertically Cultured  
Algal Biofuel Synthesis  
Chris Reeves  
Camdenton High School

## PHYSICS (continued)

2<sup>nd</sup> Place: Eric Wilson  
The Effects of Leg Length  
and Width on Speed  
Tabitha Shaver  
Hartville High School

## ZOOLOGY

1<sup>st</sup> Place: Carter Smith  
Exploring the Therapeutic  
Potential of *Aurelia aurita*  
Venom for the Treatment of  
Type I Diabetes  
Chris Reeves  
Camdenton High School

2<sup>nd</sup> Place: Hunter Lowery  
The Effects of Terrain on  
Tracking Coon Hounds  
Tabitha Shaver  
Hartville High School

**THE 2021  
JUNIOR & SENIOR  
DIVISION**



**SPECIAL AWARD  
WINNERS!**

# SPECIAL AWARDS

## AMERICAN CHEMICAL SOCIETY – OZARKS CHAPTER

*\$100 Cash and Certificate*

Junior Division: Ben Garrett  
Scholars at Central

Senior Division: Jacob Ballard  
Hartville High School

## AMERICAN METEOROLOGICAL SOCIETY

*Certificate*

Senior Division: Nicholas Faiferlick  
Camdenton High School

Emma Price  
Camdenton High School

## AMERICAN PSYCHOLOGICAL ASSOCIATION

*Certificate*

Senior Division: McKinley Sanders  
Hartville High School

## THE AMERICAN SOCIETY OF MAMMALOGISTS

*Certificate*

Junior Division: Madeline O'Toole  
Scholars at Central

Zella Schopp-Gosnell  
St. Agnes

## ASM MATERIALS EDUCATION FOUNDATION

*Ribbon and Certificate*

Junior Division: Paige Bodnar  
Scholars at Central

## ASSOCIATION FOR WOMEN GEOSCIENTISTS

*Certificate*

Junior Division: Leah Martin  
Summit Prep

## THE DR. MILES K. BARNHART EXCELLENCE IN SCIENCE AND ENGINEERING AWARD

*\$1,000 Cash Award and Certificate*

Senior Division: Jillian Bernabe  
Camdenton High School

## BROADCOM MASTERS

*Certificate of Award and Advancement in  
National Level Competition with awards up to  
\$25,000*

Junior Division: Rishi Janakiraman  
Scholars at Central

Keegan Dowdney  
Camdenton Middle School

Ben Garrett  
Scholars at Central

Grace Law  
Camdenton Middle School

Sohum Dua  
Scholars at Central

Erica Fernandez  
Scholars at Central

Ethan Johnson  
Scholars at Central

Leah Martin  
Summit Prep

Madeline O'Toole  
Scholars at Central

## DoD STEM LEADERSHIP PRIZE

*\$100 Cash and Certificate*

Junior Division: George Wood  
Scholars at Central

## THE STAN HOWELL MEMORIAL BOTANY AWARD

*Book and Certificate*

Junior Division: Keegan Dowdney  
Camdenton Middle School

Senior Division: Maya Irvine  
Camdenton Middle School

## THE 2021 LEMELSON EARLY INVENTOR PRIZE BY SOCIETY FOR SCIENCE

*\$100 Cash Award and Certificate*

Junior Division: David McDowell  
Scholars at Central

## MISSOURI STATE UNIVERSITY

*\$1,000 Scholarship*

Senior Division: Austin Barber  
Lebanon High School

Maya Irvine  
Camdenton High School

Jacob Ballard  
Hartville High School

Irelyn Meckley  
Camdenton High School

Emma Price  
Camdenton High School

Jillian Bernabe  
Camdenton High School

Allison Drennan  
Lebanon High School

Emily Willis  
Camdenton High School

Carter Smith  
Camdenton High School

# SPECIAL AWARDS

## MISSOURI STATE UNIVERSITY COLLEGE OF NATURAL AND APPLIED SCIENCES GRAND PRIZE AWARD

*\$50 Barnes & Noble Gift Card and Certificate*

Junior Division: Rishi Janakiraman  
Scholars at Central

Senior Division: Jillian Bernabe  
Camdenton High School

Allison Drennan  
Lebanon High School

## MISSOURI STATE UNIVERSITY CNAS JUNIOR GRAND PRIZE ALTERNATE AWARD

*\$50 Barnes & Noble Gift Card and Certificate*

Junior Division: Sohum Dua  
Scholars at Central

## MISSOURI STATE UNIVERSITY CNAS SENIOR GRAND PRIZE ALTERNATE AWARD

*Certificate*

Senior Division: Emily Willis  
Camdenton High School

Maya Irvine  
Camdenton High School

## MISSOURI STATE UNIVERSITY BIOLOGY AWARDS

*Certificate for Student and Plaque/Name Plates for Teacher*

Senior Division: Maya Irvine  
Camdenton High School

Emma Price  
Camdenton High School

Jillian Bernabe  
Camdenton High School

Allison Drennan  
Lebanon High School

## MISSOURI STATE UNIVERSITY DEPARTMENT OF BIOLOGY WORK STUDY AWARD

*\$1,000 Work Study Offer; Certificate to student and Plaque to Teacher*

Senior Division: Maya Irvine  
Camdenton High School

## LOU & NADINE MOORE MEMORIAL AWARD

*\$50 Cash and Certificate to the Junior Division projects covering Education or Special Needs*

Junior Division: Addison Detherow  
Marshfield Junior High

Isabella Russell  
Hailey Compton  
Marshfield Junior High

## MU ALPHA THETA MATH AWARD

*Certificate*

Senior Division: Arya Eledath  
Manu Eledath  
Greenwood Lab School

## NASA EARTH SYSTEM SCIENCE AWARD

*Certificate*

Junior Division: Kaitlyn Riggins  
Breanna Hyder  
Marshfield Middle School

## NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION "TAKING THE PULSE OF THE PLANET" AWARD

*Letter, Certificate of Award, and NOAA Medallion*

Junior Division: Kerra Steed  
St. Agnes

## LISA REECE MEMORIAL AWARD

*\$20 Cash, Book, and Certificate*

Junior Division: Mahala Billings  
St. Agnes

Senior Division: Johnathon Westhusing  
Camdenton High School

## REGENERON INTERNATIONAL SCIENCE AND ENGINEERING FAIR AWARD

*Certificate and Advancement to Regeneron International Science and Engineering Fair*

Senior Division: Jillian Bernabe  
Camdenton High School

Allison Drennan  
Lebanon High School

## RICOH CORPORATION SUSTAINABLE DEVELOPMENT AWARD

*Certificate*

Senior Division: Johnathon Westhusing  
Camdenton High School

## SOCIETY FOR IN VITRO BIOLOGY

*Certificate & Letter of Congratulations*

Senior Division: Nicholas Faiferlick  
Camdenton High School

## SCHNEIDER FOUNDATION

*\$250 Cash & Certificate*

Junior Division: Rishi Janakiraman  
Scholars at Central

Sohum Dua  
Scholars at Central

Ben Garrett  
Scholars at Central

Grace Law  
Camdenton Middle School

Madeline O'Toole  
Scholars at Central

# SPECIAL AWARDS

## SCHNEIDER FOUNDATION (continued)

### *\$500 Cash & Certificate*

Senior Division: Jillian Bernabe  
Camdenton High School

Emma Price  
Camdenton High School

Jacob Ballard  
Hartville High School

Irelyn Meckley  
Camdenton High School

Allison Drennan  
Lebanon High School

## UNITED STATES AIR FORCE

### *Certificate of Achievement*

Junior Division: Joe Meeks  
St. Agnes

## UNITED STATES METRIC ASSOCIATION

### *Certificate*

Junior Division: Chase Brodeur  
Scholars at Central

## UNITED STATES OFFICE OF NAVAL RESEARCH

### *Certificate and Medallion*

Junior Division: Rishi Janakiraman  
Scholars at Central

Sohum Dua  
Scholars at Central

Grace Law  
Camdenton Middle School

### *Certificate, Medallion, and \$50 gift card*

Senior Division: Jillian Bernabe  
Camdenton High School

Allison Drennan  
Lebanon High School

## UNITED STATES STOCKHOLM JUNIOR WATER PRIZE

### *Certificate of Award, Advancement to National Competition*

Senior Division: Clemmie Taylor  
Hartville High School

## USAID SCIENCE CHAMPION AWARD

### *Certificate and Social Media Toolkit*

Junior Division: Tilque Valdreau  
Marshfield Junior High

## WOMEN IN SCIENCE

### *\$25 Gift Certificate*

Junior Division: Leah Martin  
Summit Prep

Senior Division: Emma Price  
Camdenton High School

## YALE SCIENCE & ENGINEERING ASSOCIATION AWARD

### *Certificate & Pewter Medallion*

Senior Division: Allison Drennan  
Lebanon High School

# SPECIAL AWARDS

## THE ROBERT W. PLASTER MEMORIAL EXCELLENCE IN TEACHING AWARD

*\$1,000 Cash Award to the Teacher with the most Placement Awards in the Senior Division*

Chris Reeves  
Camdenton High School

## THE MARY JEAN PLASTER MEMORIAL EXCELLENCE IN TEACHING AWARD

*\$1,000 Cash Award to the Teacher with the Most Placement Awards in the Junior Division*

Denise Vinton  
Scholars at Central

## THE REGIONAL FAIR DIRECTOR EMERITUS SYLVIA SPEAR MEMORIAL AWARD

*\$25 Cash to a First Time Teacher*

Alicia Daniels  
Crocker High School

## THE JAMES K. TICE MEMORIAL TEACHER AWARD

*This award of \$250 cash and a certificate has been established in memory of James K. Tice, whose constant support and encouragement of Missouri's teachers and students changed so many lives.*

*Mr. Tice served for many years as a teacher, principal and superintendent of K-12 schools. Even after he retired from public education, Mr. Tice continued his tireless dedication to improving educational opportunities for everyone. He was devoted to creating learning communities, by integrating current and emerging technologies into the classroom.*

*Mr. Tice was our coach, teacher, mentor, surrogate parent, and friend. He never failed to say "I appreciate you". It is our hope that the recipient of this award also hears "We appreciate you".*

*The recipient of this year's award is:*

Tim Mulford  
Camdenton Middle School

## THE LAWRENCE E. BANKS, JR., MEMORIAL TECHNOLOGY FOR TEACHERS AWARD

*This award of \$250 cash and a certificate has been established in memory of Lawrence E. Banks, Jr., the former Dean of the Missouri State University College of Natural and Applied Sciences and a long-time friend and supporter of the Fair.*

*Dr. Banks was dedicated to education in the state of Missouri and was a strong proponent of innovative educational projects at the K-12 level as well as higher education. In 2000, he received the Science Teachers of Missouri Distinguished Service Award in recognition of his tireless support and commitment to science education.*

*In memory of Dr. Banks' enthusiasm and interest in technology, the recipient of this award is encouraged to integrate technology in their classroom.*

*The recipient of this year's award is:*

Tabitha Shaver  
Hartville High

## OZARKS SCIENCE & ENGINEERING FAIR JUNIOR DIVISION TEACHER AWARDS

*This Certificate is awarded to the teachers of the Junior Division First Place Category winners. The recipients of the Junior Division Teacher Awards for 2021 are:*

Tim Mulford  
Camdenton Middle School

Denise Vinton  
Scholars at Central

Amy Larrington  
Camdenton Middle School

Rob Powers  
The Summit Prep

## OZARKS SCIENCE & ENGINEERING FAIR SENIOR DIVISION TEACHER AWARDS

*This Certificate is awarded to the teachers of the Senior Division First Place Category winners. The recipients of the Senior Division Teacher Awards for 2021 are:*

Chris Reeves  
Camdenton High School

Ryne Emerick  
Lebanon High School

Tabitha Shaver  
Hartville High

## OZARKS SCIENCE & ENGINEERING FAIR JUNIOR DIVISION GRAND PRIZE TEACHER AWARD

*This award of a plaque is awarded to the teacher of the Junior Division Grand Prize student project. The recipient of the OSEF Foundation Junior Division Grand Prize Teacher Award for 2021 is:*

Denise Vinton  
Scholars at Central

## OZARKS SCIENCE & ENGINEERING FAIR SENIOR DIVISION GRAND PRIZE ALTERNATES TEACHER AWARD

*This award of a certificate is awarded to the teacher(s) of the Senior Division Grand Prize Alternates student projects. The recipient(s) of the OSEF Foundation Senior Division Grand Prize Alternates Teacher Award for 2021 is:*

Chris Reeves  
Camdenton High School

## OZARKS SCIENCE & ENGINEERING FAIR SENIOR DIVISION GRAND PRIZE TEACHER AWARD

*This award of a plaque is awarded to the teacher(s) of the Senior Division Grand Prize student projects. The recipients of the OSEF Foundation Senior Division Grand Prize Teacher Award for 2021 are:*

Chris Reeves  
Camdenton High School

Ryne Emerick  
Lebanon High School



The Ozarks Science & Engineering Fair Foundation and Steering Committee would like to recognize the volunteers, both individuals and organizations, without whom this event would not be possible. The success of this year's Virtual Fair was only possible with the many of hours of volunteer time behind the scenes and on screen. Our deepest thanks and appreciation to all our volunteers!

In addition, judges from across the country donated their time and expertise to provide a quality experience to every participant. We cannot recognize them all by name, but their efforts are greatly appreciated.

We especially want to acknowledge the generous contributions by Associated Electric Cooperative, Cheryl and Rodney Wrinkle, Missouri State University, and The Schneider Foundation. Their contributions, and the contributions of all of our award donors, recognize student researchers and foster their continued participation in research.

Volunteers are the lifeblood of an event of this magnitude. Without you, we could not continue the Fair's tradition of excellence. Thank you!