

# **Missouri Academy of Sciences 57th Annual Meeting**



**Junior Division**

**Columbia College  
April 23, 2021**

Sponsored by

# MISSOURI ACADEMY OF SCIENCE JUNIOR DIVISION OFFICERS

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**Dr. Mary K. Kilmer**  
**Missouri Southern State University**

**Dr. Teresa Boman**  
**Missouri Southern State University**

LOCAL ARRANGEMENTS

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**Dr. Sara Vortriede-Patton**  
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## MISSOURI ACADEMY OF SCIENCE OFFICE

Missouri Academy of Sciences  
W.C. Morris 132A  
University of Central Missouri  
Warrensburg, MO 64093

## STATE DIRECTOR(S)

Dr. Mary K. Kilmer  
Dr. Teresa Boman  
Missouri Southern State University  
Joplin, MO 64801

## JUNIOR DIVISION DISTRICT DIRECTORS

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### **Region VIII: Ozark**

Dylan Welker  
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## WELCOME TO THE MISSOURI JUNIOR ACADEMY OF SCIENCE ANNUAL MEETING!

I would like to recognize the hard work and dedication that each of you has put into your research experience.

You have begun your journey with science and maybe your future career by participating, with your peers, in presenting your contributions to discovery, and networking and learning from others.

Needless to say, the pandemic has affected all of us and changed our world in many ways. Science has never been more important in helping humanity find answers and chart a path forward.

I have great confidence in the future, knowing that scientists, educators and leaders like you are preparing now to meet the challenges society will face.

Take time to enjoy being on our campus. We're proud of our top-notch facilities and faculty! And we're proud of YOU!

*Sarah Vordtriede-Patton*

Dean, Natural Sciences & Mathematics



# Institutional Sponsor



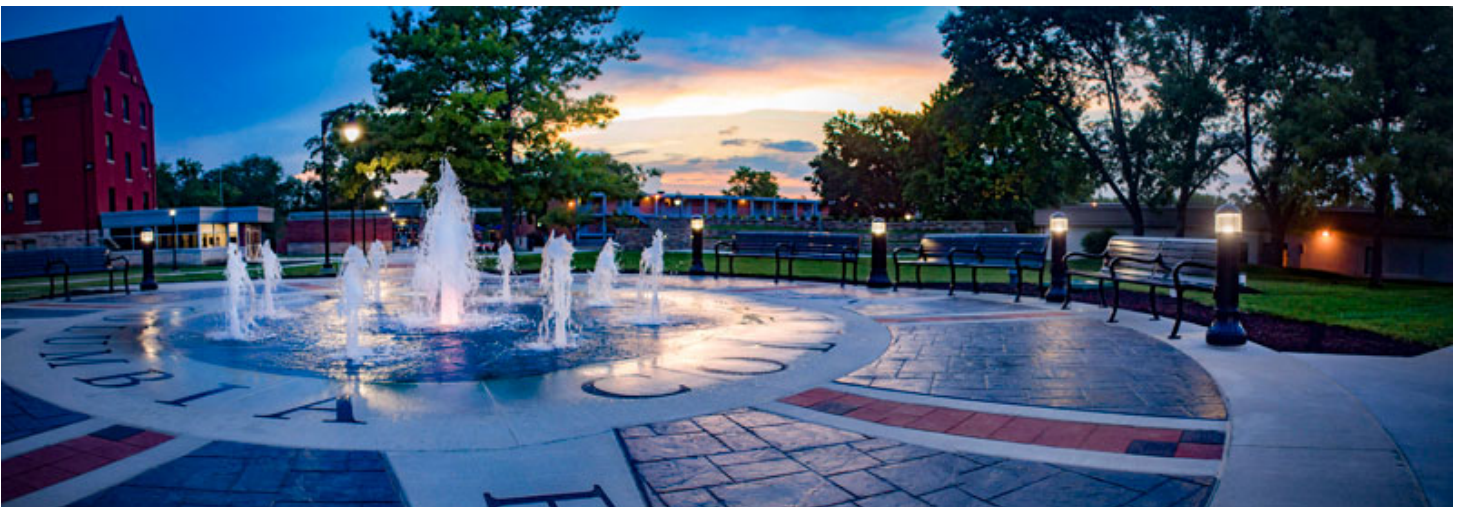
Founded in 1851, Columbia College has been helping students advance their lives through higher education for more than 160 years. A private, nonprofit liberal arts and sciences college, Columbia College takes pride in small classes, experienced faculty and quality educational programs.

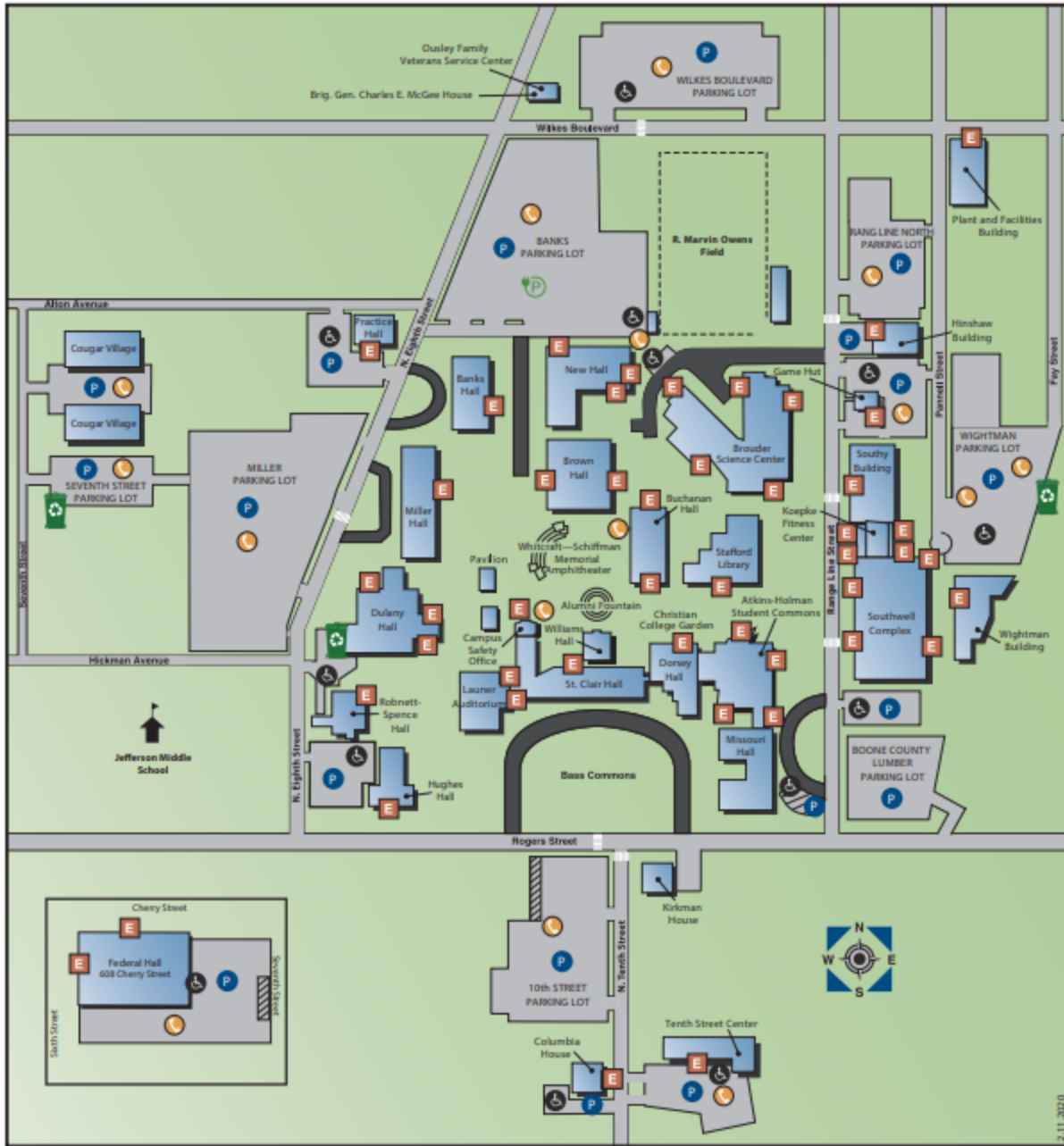
Originally founded as Christian Female College, the college changed its name to Columbia College in 1970. That year, it transitioned from a two-year women's college to a four-year coeducational college.

CC has a traditional campus, more than 30 venues nationwide, an evening program in Columbia, Mo., and an online program. The college serves approximately 18,000 students annually. The college offers associate and bachelor's degrees, as well as master's degrees at the main campus, selected venues and online.










The mission of Columbia College is to improve lives by provided quality education to both traditional and nontraditional students, helping them to achieve their true potential. Columbia College seeks to be a highly innovative institution of higher education, dedicated to excellence in both its traditional and nontraditional programs nationwide. Columbia College believes that all students deserve access to affordable, quality education and that people of all beliefs and backgrounds should engage in civil discourse and discovery. A liberal arts core curriculum is key to producing globally engaged citizens who are creative, curious and ethical.

Columbia College is accredited by the Higher Learning Commission. Columbia College was most recently reaffirmed for accreditation by the Higher Learning Commission in July 2013.





**LEGEND**

-  Students/Faculty/Staff/ Visitor permit parking
-  No parking (fire lanes, etc.)
-  Visitor parking
-  Parking
-  Handicap-accessible parking
-  Handicap-accessible entrance
-  Emergency telephone
-  Electric vehicle charging stations
-  Public recycling



1001 Rogers Street • Columbia, Missouri 65216  
 (800) 231-2391 or (573) 875-8700  
[www.ccis.edu](http://www.ccis.edu)

2.11.2020

# SCHEDULE OF EVENTS

**Friday, April 23, 2021**

- 10:00 AM – 11:30 AM General Registration  
**New Hall, 1<sup>st</sup> floor lobby**
- 11:30 AM – 11:50 AM Judges Orientation  
**Brouder Science Center, room 208**  
Drs. Teresa Boman and Mary Kilmer, State Co-Directors
- 11:30 AM -11:50 AM Virtual presenters, Student Orientation  
**Via Zoom**
- 12:00 PM - 12:20 PM High School Student Orientation  
**Brouder Science Center, room 208**  
Drs. Teresa Boman and Mary Kilmer, State Co-Directors
- 12:30 PM – 2:30 PM High School Concurrent Paper Sessions  
**New Hall (see schedule below)**  
\*\*Virtual talks for High School Engineering and Physics will begin at 12:00 pm
- 12:20 PM – 12:40 PM Middle School Student Orientation  
**Brouder Science Center, room 208**  
Drs. Teresa Boman and Mary Kilmer, State Co-Directors
- 12:45 PM – 2:30 PM Middle School Concurrent Paper Sessions  
**Brouder Science Center (see schedule below)**
- 3:00 PM – 5:00 PM Middle School Finalists' Presentations  
**Brouder Science Center, room 208**
- 3:00 PM – 5:00 PM High School Finalists' Presentations  
**New Hall, Room 125**
- 6:00 PM – 7:00 PM Middle and High School Awards Ceremony  
**New Hall, Room 125**

Please Note: One purple ribbon Finalist from each paper section will normally be chosen for the Finalist Presentations. It is also possible that no purple ribbons will be given from a particular category. The Finalists will be posted in the registration area as they are selected.

## MIDDLE SCHOOL

<b>Agriculture and Plant Science</b> <i>Brouder Science Center, Room 227</i>	<b>Medicine and Human Health Behavioral &amp; Social Sciences</b> <i>Brouder Science Center, Room 229</i>
12:45 Zackary Cline* 1:00 Adriana Crews 1:15 Bridgett Starns 1:30 James Wamsley* 1:45 Isabel Morris	12:45 Kerri Botsch* 1:00 Bailey Henry* 1:15 Seenam Dumor 1:30 Brooklyn Pendleton* 1:45 Anna Lucas
<b>Engineering and Physics Chemistry and Biochemistry</b> <i>Brouder Science Center, Room 131</i>	<b>Microbiology and Cell/Molecular Biology Biology and Environmental Science</b> <i>Brouder Science Center, Room 133</i>
12:45 Carter Nutter* 1:00 Cade Sinclair 1:15 Grace Law 1:30 David Campbell 1:45 Aidyn O'Daniel 2:00 Keli Dumor	12:45 Hailey Henderson 1:00 Emmy Vandeven 1:15 Nicole Westhusing 1:30 Keith Bass 1:45 Christian Cavener 2:00 Libby Buchheit

## HIGH SCHOOL

<b>Microbiology and Cell/Molecular Biology</b> <i>New Hall, Room 134</i>	<b>Medicine and Human Health</b> <i>New Hall, Room 135</i>
12:30 LaNita DeVine* 12:45 Jessica Gillam* 1:00 Karihn Handy 1:15 Shrihari Nagarajan 1:30 Nicholas Faiferlick 1:45 Brian Mills	12:30 Terri Barnhart* 12:45 Akhilan Elangovan* 1:00 Megan Steber* 1:15 Isabella Sotlar 1:30 Lillian Hoffman 1:45 Jillian Bernabe
<b>Engineering and Physics</b> <i>New Hall, Room 133</i>	<b>Agriculture and Plant Science Biology and Environmental Sciences</b> <i>New Hall, Room 137</i>
12:00 Emily Ratliff* 12:15 Kylie Cline* 12:30 Kyle Chen* 12:45 Ally Willis* 1:00 Ethan Dunsworth* 1:15 Tate Friedrich 1:30 Irelyn Meckley 1:45 Emily Willis 2:00 Scott Muff	12:30 Hannah Christ* 12:45 Grace Johnson 1:00 Maya Irvine 1:15 Graysen Johnson 1:30 Daniel Wamsley* 1:45 Emma Price 2:00 Arin Halmich
<b>Behavioral and Social Science Chemistry and Biochemistry</b> <i>New Hall, Room 132</i>	
12:30 Olivia Harmann* 12:45 Oviya Srihari* 1:00 Aubrey Chrisenberry 1:15 Hiren Parekh 1:30 Elijah Jones	

\* Virtual Presentation via Zoom





**MIDDLE SCHOOL**

**Presentations**

## **BROUDER SCIENCE CENTER, ROOM 133**

### **Microbiology and Cell/Molecular Biology**

12:45 PM     **Hailey Henderson**  
*What is the Effect of Ultraviolet Light on Bacteria Growth?*  
Immaculate Conception Middle School, Jackson, MO  
Sponsoring Teacher: Cliff Lankheit

1:00 PM     **Emmy Vandeven**  
*Which Inexpensive Sanitizer Kills More Bacteria?*  
Immaculate Conception Middle School, Jackson, MO  
Sponsoring Teacher: Cliff Lankheit

1:15 PM     **Nicole Westhusing**  
*Time to Say Goodbye to E. coli*  
Camdenton Middle School, Camdenton, MO  
Sponsoring Teacher: Tim Mulford

### **Biology and Environmental Science**

1:30 PM     **Keith Bass**  
*A Plant Odyssey*  
Camdenton Middle School, Camdenton, MO  
Sponsoring Teacher: Amy Larrington

1:45 PM     **Christian Cavener**  
*Fuzzy Foods*  
South Middle School, Joplin, MO  
Sponsoring Teacher: Abbie Durr

2:00 PM     **Libby Buchheit**  
*Which Type of Mushroom Mycellium Best Cleans Up Oil Spills?*  
Immaculate Conception Middle School, Jackson, MO  
Sponsoring Teacher: Cliff Lankhei

## BROUDER SCIENCE CENTER, ROOM 131

### Engineering and Physics

- 12:45 PM **Carter Nutter (VIRTUAL)**  
*Cutting Edge Props: Investigating Propeller Efficiency*  
Tuscumbia Middle School, Tuscumbia, MO  
Sponsoring Teacher: Constance Wyrick
- 1:00 PM **Cade Sinclair**  
*Does the Chord length of the Rotor Blades on a Wind Turbine Affect the Conversion of Energy?*  
South Middle School, Joplin, MO  
Sponsoring Teacher: Abbie Durr
- 1:15 PM **Grace Law**  
*Horsing Around with Hay*  
Camdenton Middle School, Camdenton, MO  
Sponsoring Teacher: Tim Mulford
- 1:30 PM **David Campbell**  
*The Effect of Bridge Reinforcement on Bridge Strength*  
St. Patrick School, Rolla, MO  
Sponsoring Teacher: Didi Fischer

### Chemistry and Biochemistry

- 1:45 PM **Aidyn O'Daniel**  
*How Will Different Amounts of Water Affect the Crystallization of Honey?*  
Immaculate Conception Middle School, Jackson, MO  
Sponsoring Teacher: Cliff Lankheit
- 2:00 PM **Kelli Dumor**  
*The Effect of Vinegar on The Strength of Casein Plastic*  
St. Patrick School, Rolla, MO  
Sponsoring Teacher: Didi Fischer

## BROUDER SCIENCE CENTER, ROOM 229

### Medicine and Human Health

- 12:45 PM **Kerri Botsch (VIRTUAL)**  
*Electrolyte Challenge: Orange Juice vs. Sports Drinks*  
Bernie Junior High School, Bernie, MO  
Sponsoring Teacher: Darla Bridges
- 1:00 PM **Bailey Henry (VIRTUAL)**  
*Healthy Pancreas versus Healthy Pancreas*  
Bernie Junior High School, Bernie, MO  
Sponsoring Teacher: Darla Bridges
- 1:15 PM **Seenam Dumor**  
*The Effect of Ventilation, Masks, and Time on Detection of Airborne Particles*  
St. Patrick School, Rolla, MO  
Sponsoring Teacher: Didi Fischer

### Behavioral & Social Science

- 1:30 PM **Brooklyn Pendleton (VIRTUAL)**  
*Taming The Tension With Tingles: A Study Of Autonomous Sensory Meridian Response*  
Tuscumbia Middle School, Tuscumbia, MO  
Sponsoring Teacher: Constance Wyrick
- 1:45 PM **Anna Lucas**  
*Under Pressure: Stress on Student-Athletes*  
Camdenton Middle School, Camdenton, MO  
Sponsoring Teacher: Amy Larrington

## BROUDER SCIENCE CENTER, ROOM 227

### Agriculture and Plant Science

- 12:45 PM     **Zackary Cline**  
*Green Mean Flood-Fighting Machines*  
Tuscumbia Middle School, Tuscumbia, MO  
Sponsoring Teacher: Constance Wyrick
- 1:00 PM     **Adriana Crews**  
*BEMER Influence on Plant Growth*  
Cole R-1 Middle School, Russellville, MO  
Sponsoring Teacher: Jeremy Horvath
- 1:15 PM     **Bridgett Starns**  
*The Effect of Different Types of Fertilizers on Chive Growth*  
St. Patrick School, Rolla, MO  
Sponsoring Teacher: Didi Fischer
- 1:30 PM     **James Wamsley**  
*A Three-Tiered Approach to Combating Invasive Japanese Honeysuckle*  
Timber Ridge Scholars Academy, Pacific, MO  
Sponsoring Teacher: Pamela Wamsley
- 1:30 PM     **Isabel Morris**  
*The Effect of Dewormers on Parasitic Worms*  
St. Patrick School, Rolla, MO  
Sponsoring Teacher: Didi Fischer



**HIGH SCHOOL**

**Presentations**

## NEW HALL, ROOM 134

### Microbiology and Cell/Molecular Biology

- 12:30 PM     **LaNita DeVine (VIRTUAL)**  
*Isolation and Identification of Antibiotic Compounds from Soil Found in Suburban Public Parks*  
  
Wentzville High School, Wentzville, MO  
Sponsoring Teacher: Jennifer Hess
- 12:45 PM     **Jessica Gillam (VIRTUAL)**  
*The Effect of Bacillus subtilis on Caenorhabditis elegans Growth and Mobility*  
  
Wentzville High School, Wentzville, MO  
Sponsoring Teacher: Theresa Cordon
- 1:00 PM     **Karihn Handy**  
*Naturally Derived vs. Synthetically Manufactured Antibiotics: The Effects on the Gut Microbiome*  
  
Joplin High School, Joplin, MO  
Sponsoring Teacher: Karisa Boyer
- 1:15 PM     **Shrihari Nagarajan**  
*Prebiotic and Probiotic Pairing to Inhibit the Growth of Pathogenic Gut Microbes*  
  
Thomas Jefferson High School, Joplin, MO  
Sponsoring Teacher: Christopher Rugar
- 1:30 PM     **Nicholas Faiferlick**  
*Transforming Marine Bacteria for Enhanced Biodegradation of Polyethylene Terephthalate in Aquatic Ecosystems*  
  
Camdenton High School, Camdenton, MO  
Sponsoring Teacher: Christopher Reeves
- 1:45 PM     **Brian Mills**  
*Effect of Aquaspirillum Itersonii and Aquaspirillum Serpens on Duckweed*  
  
St. Clair High School, St. Clair, MO  
Sponsoring Teacher: Ben Martin

## NEW HALL, ROOM 135

### Medicine and Human Health

- 12:30 PM     **Terri Barnhart (VIRTUAL)**  
*Flexibility Fitness*  
Tuscumbia High School, Tuscumbia, MO  
Sponsoring Teacher: Constance Wyrick
- 12:45 PM     **Akhilan Elangovan (VIRTUAL)**  
*Combined AI and nano-cell internalization to predict cancer aggressiveness*  
Rock Bridge High School, Columbia, MO  
Sponsoring Teacher: James Meyer
- 1:00 PM     **Megan Steber (VIRTUAL)**  
*The Anti-Inflammatory Properties of Avocado Seed and the Effect on Inflammatory Bowel Disease*  
Wentzville High School, Wentzville, MO  
Sponsoring Teacher: Jennifer Hess
- 1:15 PM     **Isabella Sotlar**  
*Does Pseudoephedrine Stunt Growth in Caenorhabditis elegans?*  
Joplin High School, Joplin, MO  
Sponsoring Teacher: Karisa Boyer
- 1:30 PM     **Lillian Hoffman**  
*Oxidative Stress and Fertility*  
Immaculate Conception High School, Jackson, MO  
Sponsoring Teacher: Leanne Thele
- 1:45 PM     **Jillian Bernabe**  
*Characterization of H3N2 Influenza Virus Specific Monoclonal Antibodies*  
Camdenton High School, Camdenton, MO  
Sponsoring Teacher: Christopher Reeves



## NEW HALL, ROOM 133

### Engineering and Physics

- 12:00 PM     **Emily Ratliff (VIRTUAL)**  
*Prosthetic Foot*  
Higbee High School, Higbee, MO  
Sponsoring Teacher: Charles Schroeder
- 12:15 PM     **Kylie Cline (VIRTUAL)**  
*Future Food Films: Developing Viable Edible Films*  
Tuscumbia High School, Tuscumbia, MO  
Sponsoring Teacher: Constance Wyrick
- 12:30 PM     **Kyle Chen (VIRTUAL)**  
*Prediction and Synthesis of an Advanced Two-Dimensional Functional Material*  
Rock Bridge High School, Columbia, MO  
Sponsoring Teacher: Sarah Laster
- 12:45 PM     **Ally Willis (VIRTUAL)**  
*Bringing the Heat*  
Wentzville High School, Wentzville, MO  
Sponsoring Teacher: James Weber
- 1:00 PM     **Ethan Dunsworth (VIRTUAL)**  
*Efficiency of Laser-Induced HB11 Fusion Reaction Under Varying Methods of Kilotesla Magnetic Confinement*  
Wentzville High School, Wentzville, MO  
Sponsoring Teacher: Jennifer Hess
- 1:15 PM     **Tate Friedrich**  
*Testing for the Optimal Configuration and Materials for an Ion Propelled Aircraft*  
Immaculate Conception High School, Jackson, MO  
Sponsoring Teacher: Leanne Thele
- 1:30 PM     **Irelyn Meckley**  
*The Engineering of a Biomimetic Airfoil to Improve the Acoustic Silencing and the Aerodynamic Capabilities of Micro Aerial Vehicles (MAVs) Through Ornithological Adaptations and Camber Manipulation for Military and Commercial Applications*  
Camdenton High School, Camdenton, MO  
Sponsoring Teacher: Christopher Reeves

## NEW HALL, ROOM 133

### Engineering and Physics (Continued)

1:45 PM

**Emily Willis**

*The Sun is Rising on Biofuels: Determining the Potential use of Light Scattering to Enhance Vertically Cultured Algae Biofuel Synthesis Utilizing a Solar Collector and Side Glow Fiber Optics*

Camdenton High School, Camdenton, MO  
Sponsoring Teacher: Christopher Reeves

2:00

**Scott Muff**

*Development of a Wire Arc Additive Manufacturing Extruder for Inexpensive High-Quality Metal 3D Printed Parts*

Camdenton High School, Camdenton, MO  
Sponsoring Teacher: Christopher Reeves

## NEW HALL, ROOM 132

### Behavioral and Social Science

- 12:30 PM **Olivia Harmann (VIRTUAL)**  
*Exploring the Role Weight Requirements Play on Young Women Wrestlers' Body Image and Self-Esteem*  
Wentzville High School, Wentzville, MO  
Sponsoring Teacher: Jennifer Hess
- 12:45 PM **Oviya Srihari, (VIRTUAL)**  
*Predictors of health service utilization rates among patients with eating disorders: a meta-analysis*  
Ladue Horton Watkins High School, St. Louis, MO  
Sponsoring Teacher: Allen Weltig

### Chemistry and Biochemistry

- 1:15 PM **Aubrey Chrisenberry**  
*The Effects of Habitual Caffeine Consumption on Stress in Lab Mice*  
Joplin High School, Joplin, MO  
Sponsoring Teacher: Karisa Boyer
- 1:30 PM **Hiren Parekh**  
*Towards the Total Synthesis of the TRAIL-Resistance-Overcoming Cytotoxic Pannokin D for the Development of New Anticancer Pharmaceuticals and a Novel Regioselective Diprenylated Chromone-Derived Flavonoid Synthesis*  
Saxony Lutheran High School, Jackson, MO  
Sponsoring Teacher: Brenda Etzold
- 1:45 PM **Elijah Jones**  
*Towards the Total Synthesis of the Leishmanicidal Lindbergin E for the Development of an Enantioselective Phloroglucinol-Derived Polyketide Synthesis*  
Immaculate Conception High School, Jackson, MO  
Sponsoring Teacher: Leanne Thele

## NEW HALL, ROOM 137

### Agriculture and Plant Science

- 12:30 PM **Hannah Christ (VIRTUAL)**  
*Lactuca sativa var. capitata's Response to Hydroponically Introduced Mycorrhizae*  
Wentzville High School, Wentzville, MO  
Sponsoring Teacher: Jennifer Hess
- 12:45 PM **Grace Johnson**  
*Application of arbuscular mycorrhizal fungi to inhibit Nitrogen uptake of weeds within crop fields*  
Lebanon High School, Lebanon, MO  
Sponsoring Teacher: Ryne Emerick
- 1:00 PM **Maya Irvine**  
*The Role of the Phytotoxic Flavone Apigenin in the Allelopathic Pathway of the Invasive Plant Species, Lonicera maackii*  
Camdenton High School, Camdenton, MO  
Sponsoring Teacher: Christopher Reeves
- 1:15 PM **Graysen Johnson**  
*Effects of the Presence or Absence of Isopods of the Genus Porcellio on Soil Nutrient Content and Plant Growth*  
Immaculate Conception High School, Jackson, MO  
Sponsoring Teacher: Leanne Thele
- 1:30 PM **Daniel Wamsley**  
*Improving Sustainable Agriculture Through Computer Generated Leaf Angle Measurements*  
Timber Ridge Scholars Academy, Pacific, MO  
Sponsoring Teacher: Pamela Wamsley

### Biology and Environmental Science

- 1:45 PM **Emma Price**  
*Implementation of Human Urine and Cellulose Nanomaterials as a Visual Arsenic Assay and Accessible Arsenic Remediation Method*  
Camdenton High School, Camdenton, MO  
Sponsoring Teacher: Christopher Reeves
- 2:00 PM **Arin Halmich**  
*Analyzing Lichens to Determine Air Quality near the Labadie Power Plant in Missouri*  
St. Clair High School, St. Clair, MO  
Sponsoring Teacher: Ben Martin



# AWARDS

## KIRKPATRICK SENIOR EAGLE AWARD

Eva and Kamps Kirkpatrick have supported the Junior Division from its historical beginnings. Eva served in the past as State director for the Junior Division for two consecutive three-year terms (a record). In recognition of the Kirkpatrick family's tireless efforts to build the Junior Division from the ground up to what it is today, the two top Senior High papers are recognized each year with this trophy donated by the Kirkpatricks.

1980	Peggy Sue Nelson	Highland HS, Ewing	1981	Lei Ann Laster John Phillips	Cooter HS, Cooter Southland HS, Cardwell
1982	Yvette Barera	Cor Jesu Academy, St. Joseph	1983	Richard Roberts	Central HS, St. Joseph
1984	Karen Stoll Albert Fook Ming Chew	Poplar Bluff HS, Poplar Bluff Carl Junction HS, Carl Junction Carl Junction HS, Carl Junction	1985	Karen Stoll William Clifton	Poplar Bluff HS, Poplar Bluff Neosho HS, Neosho
1986	Anna Miller Anna Joern	Carl Junction HS, Carl Junction Ursuline Academy, St. Louis	1987	Charisse Hills Jeff Zweerink	Glendale HS, Springfield Central HS, St. Joseph
1988	Kim Shaw Jamal Green	Clearwater HS, Piedmont Benton HS, St. Joseph	1989	Andrew Gordon Jamal Green	Glendale HS, Springfield Benton HS, St. Joseph
1990	John Dyer Vijay Sreenarasimhaiah	Central HS, St. Joseph Nevada HS, Nevada	1991	Brenda Fite Joshua Summers	Central HS, St. Joseph Liberty HS, Liberty
1992	Amy Lawson Sheela Sathyanarayana	Central HS, Joplin Pembroke Hill, Kansas City	1993	Amy Lawson Jennifer Runsey	Central HS, Joplin Liberty HS, Liberty
1994	Amy Lawson Connie Cheung	Central HS, Joplin Pembroke Hill, Kansas City	1995	Chad Evans Keith Bowe	Central HS, St. Joseph Grundy County HS, Laredo
1996	Rhea Gertken Ian Wann	Ursuline Academy, St. Louis Central HS, St. Joseph	1997	Terry Baynes Deepa Mangalat	Pembroke Hill, Kansas City Joplin HS, Joplin
1998	Deepa Mangalat Mallik Tella	Joplin HS, Joplin Pembroke Hill, Kansas City	1999	Jonathan Newport Amity Pecenka	Glendale HS, Springfield Osage HS, Kaiser
2000	Brandon Lang Matthew Murphy	New Franklin HS, New Franklin Lafayette HS, St. Joseph	2001	Eric Rahm Robbie Hart	Jefferson City HS, Jefferson City Cole HS, Eldon
2002	Siir Kilkis Krishnan Pabniappan	Greenwood HS, Springfield Hickman HS, Columbia	2003	Daniel Castle Adam Vogel	St. Joseph Christian HS, St. Joseph St. Charles West HS, St. Charles
2004	Chelsea Grigory Derrick Helton	Sikeston HS, Sikeston Tuscumbia HS, Tuscumbia	2005	Chelsey Hall Kristen Wright	Seneca HS, Seneca Tuscumbia HS, Tuscumbia
2006	Elena Ovaitt Hazar Kidir	West Platte HS, Weston Jefferson City HS, Jefferson City	2007	Alyssa Ovaitt Meghna Srinath	West Platte HS, Weston Hickman HS, Columbia
2008	Michelle Kropf Michael Stockwell	Seneca HS, Seneca Tuscumbia HS, Tuscumbia	2009	Sirish Veligati Jay Gulshen	Central HS, St. Joseph Camdenton HS, Camdenton
2010	Jay Gulshen Sonia Rao	Camdenton HS, Camdenton Camdenton HS, Camdenton	2011	Bailee Slack Kori Haley	Camdenton HS, Camdenton Tuscumbia HS, Tuscumbia
2012	Cindy Jiang Thomas Palmer	Central HS, St. Joseph Camdenton HS, Camdenton	2013	Ashley Wyrick Tara Humphreys	Tuscumbia HS, Tuscumbia Tuscumbia HS, Tuscumbia
2014	Tyler Carpenter Elsa Kunz	Camdenton HS, Camdenton Central HS, St. Joseph	2015	NOT AWARDED	
2016	Anthony Eckdahl Brock Andreasen	Central HS, St. Joseph Camdenton HS, Camdenton	2017	Dustin Bax Vincent Khor	Tuscumbia HS, Tuscumbia Camdenton HS, Camdenton
2018	Miranda Sauer River Wise	Camdenton HS, Camdenton Camdenton HS, Camdenton	2019	Charles Stone Lucas Mosher	Wentzville HS, Wentzville Camdenton HS, Camdenton
2020	Competition cancelled due to COVID-19 pandemic				

## KIRKPATRICK JUNIOR EAGLE AWARDS

In 1993, Eva and Kemps Kirkpatrick, long-time supporters of Junior Division activities, chose to extend their Senior High “Eagle” trophy recognition already in place for the two top Senior High finalists to include as well the two top Junior High finalists. The following are recipients of these awards in past years (first awarded, 1993.)

1993	Beth Lawson Tara Thiermann	South MS, Joplin Versailles MS, Versailles	1994	Beth Lawson Jesse Blomberg	South MS, Joplin Versailles MS, Versailles
1995	Deborah Sieberg Jason Squires	Spring Garden MS, St. Joseph Bode MS, St. Joseph	1996	Karli Echterling Stanley W. Grinter	Bode MS, St. Joseph Liberty JH, Liberty
1997	Ami Patel Brandon Lang	Bode MS, St. Joseph New Franklin MS, New Franklin	1998	Jay Archer John Hornaday	St. Francis MS, St. Joseph Bode MS, St. Joseph
1999	Samir Sheth Megan Varma	Bode MS, St. Joseph Bode MS, St. Joseph	2000	Cody Conner Sarah Moreau	Robidoux MS, St. Joseph New Franklin MS, New Franklin
2001	Lindsey Williams John Dunham	Spring Garden MS, St. Joseph Bode MS, St. Joseph	2002	Mindy Briscoe Michael Stockwell	Moberly MS, Moberly Russellville MS, Russellville
2003	Nathan Kinast Elena Ovaitt	Thomas Jefferson IDS, Joplin West Platte MS, Weston	2004	Michael Stockwell Chaz Robbins	Tuscumbia MS, Tuscumbia Mid-Buchanan MS, Faucet
2005	Josh Habermehl Tyler Dietzschold	Moberly MS, Moberly Chillicothe MS, Chillicothe	2006	Zach Beattie Andrew Kozminski	Savannah MS, Savannah Savannah MS, Savannah
2007	Victoria Fritchey Taylor Gaines	Tuscumbia MS, Tuscumbia Seneca MS, Seneca	2008	Taylor Gaines Tara Humphreys	Seneca MS, Seneca Tuscumbia MS, Tuscumbia
2009	Jacob Cogan Cindy Jiang	West Platte JH, Weston Bode MS, St. Joseph	2010	Ashley Wyrick Matthew Estes	Tuscumbia MS, Tuscumbia Seneca MS, Seneca
2011	Rachel Butterfield Lauren Haley	Seneca MS, Seneca Chillicothe MS, Chillicothe	2012	Lydia Reitzel Andrew Benckendorf	Delta R-V MS, Delta McKinley CLA, St. Louis
2013	NOT AWARDED		2014	Collin Gentry Madison Wade	Bode MS, St. Joseph Seneca MS, Seneca
2015	NOT AWARDED		2016	Shelby Miller Isabella Wiebelt-Smith	Chillicothe MS, Chillicothe Bode MS, St. Joseph
2017	Isabella Wiebelt-Smith Daniel Read	Bode MS, St. Joseph St. Patrick Catholic, Rolla	2018	Nicky Dawes Leah Laurencio	St. Patrick Catholic, Rolla Chillicothe MS, Chillicothe
2019	Jacob Hogue Andrew Haas	Montgomery City MS, Montgomery City Camdenton MS, Camdenton	2020	Competition cancelled due to COVID-19 pandemic	

## AMY AND BETH LAWSON MICROBIOLOGY AWARD

This award recognizes the best bacteriology project by a middle level student. Amy and Beth Lawson, daughters of the District Director, Mike Lawson, participated and excelled in the Junior Academy program throughout their middle school and high school years. Amy and Beth have built upon their successes in the Junior Academy as they enter their careers. This award serves to encourage our next generation of doctors and researchers. The following Junior High students received this award in past years (first awarded, 2004)

2004	Haley Daus	Thomas Jefferson IDS, Joplin	2005	Nicloe Molumby	Mid-Buchanan HS, Faucett
2007	Haleigh White	Mid-Buchanan HS, Faucett	2006	Shaylyn Cooksey	Moberly MS, Moberly
2008	Emily Wilson	Parkway Central MS, St. Louis	2009	Taylor Gaines	Seneca MS, Seneca
2010	Matthew Estes	Seneca MS, Seneca	2011	Ashley Wyrick	Tuscumbia MS, Tuscumbia
2012	NOT GIVEN		2013	Emma Leamer	Chillicothe MS, Chillicothe
2014	NOT GIVEN		2016	Isabella Wiebelt-Smith	Bode MS, St. Joseph
2017	Isabella Wiebelt-Smith	Bode MS, St. Joseph	2018	Connor Stockam	South Middle MS, Joplin
2019	Andrew Haas	Camdenton MS, Camdenton	2020	Competition cancelled due to COVID-19 pandemic	

## PAULA MACY MEMORIAL AWARD

This award recognizes the best project that has been done without using the resources of a university or university-based sponsor. It is to honor a woman, Paula, whose courage and determination as well as dedication to the sciences should inspire us all.

2014	Mary Meyers	Mid-Buchanan HS, Faucett	2016	NOT AWARDED	
2017	Ben Meyer	Wentzville Holt HS, Wentzville	2018	Charles Stone	Wentzville HS, Wentzville
2019	Leah Gihring	Home-schooled	2020	Competition cancelled due to COVID-19 pandemic	



## MIDDLE SCHOOL PRESENTATION AWARDS

These awards recognized the middle school students who are considered to have the best oral presentation in their specific category. Winning students receive a certificate and a cash prize.

2018	Life Sciences I	Lewis Page	Smithton MS, Columbia	Sponsored by MO-SCI Corporation
	Life Sciences II	Leah Laurenco	Chillicothe MS, Chillicothe	Sponsored by MO-SCI Corporation
	Physical Sciences	Nicky Dawes	St. Patrick MS, Rolla	Sponsored by MO-SCI Corporation
	Engineering	Robbie Criddle	Immaculate Conception MS, Jackson	Sponsored by MO-SCI Corporation
2019	Life Science I	Eve Jones	Immaculate Conception MS, Jackson	Sponsored by MO-SCI Corporation
	Chemistry	Jacob Hogue	Montgomery City MS, Montgomery City	Sponsored by MO-SCI Corporation
	Physics and Engineering	Hailey Burnett	Immaculate Conception MS, Jackson	Sponsored by MO-SCI Corporation
	Environmental Science	Nicky Dawes	St. Patrick MS, Rolla	Sponsored by MO-SCI Corporation
	Agriculture and Plant Science	Troy Zeilstra	Brunswick MS, Brunswick	Sponsored by MO-SCI Corporation
	Behavioral and Social Science	Eyram Dumor	St. Patrick MS, Rolla	Sponsored by MO-SCI Corporation
2020	Competition cancelled due to COVID-19 pandemic			

## HIGH SCHOOL PRESENTATION AWARDS

These awards recognized the high school students who are considered to have the best oral presentation in their specific category. Winning students receive a certificate and a cash prize. (first awarded, 2018).

2018	Life Sciences I	Andrew Vehige	Timberland HS, Wentzville	Sponsored by MO-SCI Corporation
	Life Sciences II	Charles Stone	Wentzville HS, Wentzville	Sponsored by MO-SCI Corporation
	Life Sciences III	Miranda Sauer	Camdenton HS, Camdenton	Sponsored by MO-SCI Corporation
	Environmental Science	Hannah Rogers	Camdenton HS, Camdenton	Sponsored by MO-SCI Corporation
	Physical Sciences/Engineering	River Wise	Camdenton HS, Camdenton	Sponsored by MO-SCI Corporation
2019	Agriculture and Plant Sciences	Ryan Dodds	Eldon HS, Eldon	Sponsored by MO-SCI Corporation
	Behavioral Science	Grace Nielson	Joplin HS, Joplin	Sponsored by MO-SCI Corporation
	Chemistry and Computer Science	Lucas Mosher	Camdenton HS, Camdenton	Sponsored by MO-SCI Corporation
	Environmental Science	Preston Barron	Moberly HS, Moberly	Sponsored by MO-SCI Corporation
	Medicine and Human Health	Charles Stone	Wentzville HS, Wentzville	Sponsored by MO-SCI Corporation
	Microbiology	Jillian Bernabe	Camdenton HS, Camdenton	Sponsored by MO-SCI Corporation
	Life Science	Destinie Turis	Eldon HS, Eldon	Sponsored by MO-SCI Corporation
	Engineering and Physics	Drake Snyder	Camdenton HS, Camdenton	Sponsored by MO-SCI Corporation
2020	Competition cancelled due to COVID-19 pandemic			

## STUDENT ACHIEVEMENT AWARD (ORAL PRESENTATION)

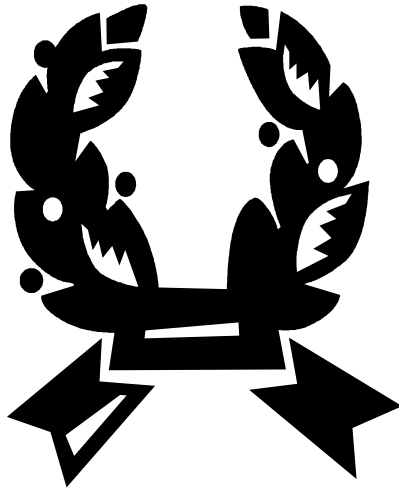
This award of a plaque recognizes the best oral presentation by a high school student. The winning student also receives funding to help cover the cost of registration for the National Academy of Sciences meeting and travel to this award.

2018	Hannah Rodgers	Camdenton HS, Camdenton	Sponsored by MO-SCI Corporation
2019	Charles Stone	Wentzville HS, Wentzville	Sponsored by MO-SCI Corporation
2020	Competition cancelled due to COVID-19 pandemic		

## OUTSTANDING MIDDLE AND HIGH SCHOOL TEACHER AWARD

This award of a plaque and \$50 cash recognizes outstanding teachers who have made significant contribution to students' participation at the Missouri Junior Academy of Science. Teachers are also awarded research funding to be used for future student research projects.

2016	Mrs. Gail Drallmeier Mr. Chris Reeves	St. Patrick Catholic School, Rolla Camdenton High School, Camdenton	Sponsored by MO-SCI Corporation Sponsored by MO-SCI Corporation
2017	Mrs. Paula Burkhart Ms. Teresa Freeman	Moberly Middle School, Moberly Mid-Buchanan High School, Faucett	Sponsored by MO-SCI Corporation Sponsored by MO-SCI Corporation
2018	Mr. Tim Mulford Mrs. Karisa Boyer	Camdenton Middle School, Camdenton Joplin High School, Joplin	Sponsored by MO-SCI Corporation Sponsored by MO-SCI Corporation
2019	Ms. Abbie Durr Ms. Peggy Veatch	South Middle School, Joplin Eldon High School, Eldon	Sponsored by MO-SCI Corporation Sponsored by MO-SCI Corporation



**RETIRED  
AWARDS**

## THE PAUL SCHAMBURG MEMORIAL AWARD

This award recognizes the best testing apparatus built by a middle level student. Paul Schamburg did not have the benefit of a college education, but worked effectively as a carpenter and skilled technician until he died while still in his 50's. Mr. Schamburg saw that all three of his children were able to obtain an education beyond high school, and he delighted in working with the children in his hometown of Perryville, Missouri. This award will be given to the best testing apparatus, honoring Mr. Schamburg's skills in carpentry and technology. The following Junior High students received this award in past years (first awarded, 1990, retired 2019)

1990	Jared Welch	NE Nodaway R-V, Ravenwood	1991	Jaime Fuldner	Monett Middle School, Monett
1992	Adam Gerber	Versailles MS, Versailles	1993	NOT GIVEN	
1994	Josh Wiederholt	Nodaway R-V, Ravenwood	1995	Jacob Wyrick	Miller County R-IV, Tuscumbia
1996	Derick Berry	Grundy Co. R-V, Galt	1997	Karli Echterling	Bode MS, St. Joseph
1998	Dustin Bauer	Bode MS, St. Joseph	1999	Tyler Rummens	Mansfield MS, Mansfield
2000	Kristen Ream	Pattonsville MS, Maryland Heights	2001	John Dunham	Bode MS, St. Joseph
2002	Nicholas Reinsvold	Thomas Jefferson IDS, Joplin	2003	Kirsten Chodrick	Carl Junction MS, Carl Junction
2004	Chaz Robbins	Mid-Buchanan MS, Faucet	2005	NOT AWARDED	
2006	Ashley Piland	Mansfield MS, Mansfield	2007	Ethan Davis	Mansfield MS, Mansfield
2008	Trevor Job	St. Joseph MS, Scott City	2009	Jacob Cogan	West Platte JH, Weston
2010	Jacob McCullough	Chillicothe MS, Chillicothe	2011	Van Hopkins	Bode MS, St. Joseph
2012	Dawson Jarrett	Tuscumbia MS, Tuscumbia	2013	Jonathan Cronk	Bode MS, St. Joseph
2014	William Gentry	Bode MS, St. Joseph	2016	Taylor Wise	Camdenton MS, Camdenton
2017	Ben Higgins	Immaculate Conception, Jackson	2018	Leah Laurenco	Chillicothe MS, Chillicothe
2019	Connor Starkey	Camdenton MS, Camdenton			

## THE DR. JOHN PAUL MORRIS AWARD

A plaque and a \$25 check are presented each year to a young woman interested in physical science in memory of Dr. John Paul Morris. Dr. Morris was an early member and strong supporter of the MAS Junior Division and was interested in the encouragement of young women in the sciences. The following young women have received this award (first awarded in 1976, retired 2019)

1976	Marlene Drag	Bishop LeBlond HS, St. Joseph	1977	Glenda Farrar Nancy Seavage	Bishop LeBlond HS, St. Joseph Central HS, St. Joseph
1978	Michelle Bellow	Truman HS, Independence	1979	Susan Weimer	Neosho HS, Neosho
1980	Tracy David	Maryville HS, Maryville	1981	Tammy Sue Rolofson	Lafayette HS, St. Joseph
	Lova Whited	Maryville HS, Maryville			
1982	Stacey Fennewald	Bishop LeBlond HS, St. Joseph	1983	Susan Ullensvang	John Burroughs HS, St. Joseph
1984	Tina Chancy	Benton HS, St. Joseph	1985	Marilyn Thompson	Central HS, St. Joseph
1986	Katherine Geoffeney	Central HS, St. Joseph	1987	Christine Boutwell	Central HS, St. Joseph
	Kathleen Fetters	Central HS, St. Joseph			
1988	Michelle Fay	Parkhill HS, Kansas City	1989	Susan Neeley	South Nodaway HS, Barnard
1990	Elizabeth Roth	Liberty HS, Liberty	1991	Brenda Fite	Central HS, St. Joseph
1992	Erika Anderson	Glendale HS, Springfield	1993	Valerie Bartlett	Central HS, St. Joseph
1994	Christy Collins	McCluer HS, Florissant	1995	Rachel Popelka	Ladue Horton HS, St. Louis
1996	Shana Holloway	Charles Sumner HS, St. Louis	1997	Lucie B. Johannua	Jefferson City HS, Jefferson City
1998	Deepa Mangalat	Joplin HS, Joplin	1999	NOT AWARDED	
2000	Mary Cowherd	Chillicothe HS, Chillicothe	2001	Katie Leiter	Carthage Technical Center, Carthage
2002	Siir Kilkis	Greenwood HS, Springfield	2003	Katharine Chitwood	School of the Osage, Kaiser
2004	Chelsea Grigery	Sikeston HS, Sikeston	2005	Chelsea Grigery	Sikeston HS, Sikeston
2006	Swathi Bhaskaran	Hickman HS, Columbia	2007	Haley Daus	Thomas Jefferson IDS, Joplin
2008	Haley Daus	Thomas Jefferson IDS, Joplin	2009	Cameron Nunn	Seneca HS, Seneca
2010	NOT AWARDED		2011	NOT AWARDED	
2012	Koren Haley	Tuscumbia HS, Tuscumbia	2013	Rachel Harmon	Camdenton HS, Camdenton
2014	Shelby Huey	Camdenton HS, Camdenton	2016	NOT AWARDED	
2017	Emily Mouser	Dexter HS, Dexter	2018	Hannah Rodgers	Camdenton HS, Camdenton
2019	Kelli Alford	Camdenton HS, Camdenton			

## THE JAN BULGER MEMORIAL AWARD

This award of a plaque and \$25 cash recognizes the best expository writing in a paper by a middle level student. Jan Bulger was taken in her prime by cancer. In the few years that she was allowed to teach she gave so much to her reading and English students. Jan stands tall among teachers, and a paper reflecting her expository writing will receive this award. The following Junior High students received this award in past years (first awarded, 1990, retired 2019)

1990	Kate Daly	Moberly Jr. High, Moberly	1991	Julie Koutz	Moberly Jr. High, Moberly
1992	Amy Vandeven	Leopold R-III, Leopold	1993	Beth Lawson	South MS, Joplin
1994	Nigel Cooney	Sarcoxie JHS, Sarcoxie	1995	Emily Wann	Bode MS, St. Joseph
1996	Tosha Robert	Pleasant View R-6, Trenton	1997	John Persaud	Bode MS, St. Joseph
1998	Anna Berkowitz	Bode MS, St. Joseph	1999	Pamela Smith	Academy MS, High Ridge
2000	Whitney Lang	New Franklin MS, New Franklin	2001	Heather Mitchell	Robidoux MS, St. Joseph
2002	Derek Thompson	Potosi MS, Potosi	2003	Paul Huang	Central, Springfield
2004	Colin Turk	Moberly MS, Moberly	2005	Alyssa Ovaitt	West Platte MS, Weston
2006	Andrew Kosminski	Savannah MS, Savannah	2007	Victoria Fritchey	Tuscumbia MS, Tuscumbia
2008	Taylor Gaines	Seneca MS, Seneca	2009	Emily Hoover	Seneca MS, Seneca
2010	Elsa Kunz	Bode MS, St. Joseph	2011	Matthew Stockwell	Tuscumbia MS, Tuscumbia
2012	Haley Grier	Bode MS, St. Joseph	2013	Alex Eftink	St. Ambrose School, Chaffe
2016	Jayden Olson	South MS, Joplin	2017	Emma Higgins	Immaculate.Conception, Jackson
2018	Solana Rivera	Truman MS, St. Joseph	2019	NOT AWARDED	

## THE ALLHOFF MEMORIAL AWARD

This award recognizes the best earth science paper by a middle level student. Francis and Margaret Allhoff, born at the turn of the last century, did not understand the importance of girls learning science, nor even leaving the house to work in the scientific world. Yet, they allowed all their daughters and their one son to train and work in this field. Their forward acceptance of the pace of our world has not only allowed their children to be scientists, but their grandchildren now include a female doctor, a female geologist, and other scientists. The best earth science paper by a middle level student will receive this award. (If there is no earth science paper, this award may be given to a related paper.) The following Junior High students received this award in past years (first awarded, 1990, retired 2019)

1990	Janell Meyer	Joplin Jr. High, Joplin	1991	Justin Oaks	Grundy Co. R-V, Galt
1992	Justin Oaks	Grundy Co. R-V, Galt	1993	Summer Talley	Joplin Jr. High, Joplin
1994	Deborah Siebern	Spring Garden MS, St. Joseph	1995	Aaeon Gregory	Holmes School, Kansas City
1996	Karli Echterling	Bode MS, St. Joseph	1997	Johnathan Minor	Grundy Co. R-V, Galt
1998	Shil Patel	Bode MS, St. Joseph	1999	Samir Sheth	Bode MS, St. Joseph
2000	Karelee Mantei	St. Agnus MS, Springfield	2001	John Dunham	Bode MS, St. Joseph
2002	Colt Snapp	Spring Garden MS, St. Joseph	2003	Mary Mantei	St. Agnes MS, Springfield
2004	Alyssa Ovaitt	West Platte MS, Weston	2005	Alyssa Ovaitt	West Platte MS, Weston
2006	Bryce Shields	Truman MS, St. Joseph	2007	Jacob Wilson	West Platte JH, Weston
2008	Taylor Gregory	Mid-Buchanan MS, Faucett	2009	Nathan Coulson	West Platte JH, Weston
2010	Eman Ascensio	West Platte JH, Weston	2011	Melinda Groves	High Point R-3, High Point
2012	Trey Bayte	Chillicothe MS, Chillicothe	2013	Dustin Bax	Tuscumbia MS, Tuscumbia
2014	NOT AWARDED		2016	Charlie Carlton	Delta MS, Delta
2017	Nicky Dawes	St. Patrick Catholic, Rolla	2018	Nicky Dawes	St. Patrick Catholic, Rolla
2019	Nicky Dawes	St. Patrick Catholic, Rolla			

## STUDENT ACHIEVEMENT AWARD (POSTER PRESENTATION)

This award of a plaque and \$50 cash recognizes the overall best poster presented by a high school student. (first awarded, 2016, retired 2019).

2016	Jamde Samanta	Joplin Jr. High, Joplin	Sponsored by MO-SCI Corporation
2017	Dustin Bax	Tuscumbia HS, Tuscumbia	Sponsored by MO-SCI Corporation
2018	Miranda Sauer	Camdenton HS, Camdenton	Sponsored by MO-SCI Corporation
2019	Isabella Wiebelt-Smith	Central HS, St. Joseph	Sponsored by MO-SCI Corporation
2020	Competition cancelled due to COVID-19 pandemic		

## SENIOR HIGH POSTER COMPETITION AWARDS

Fifty dollars cash and a certificate are awarded to the best posters selected by a special judging team. The following students have received these awards in past years (first awarded, 1988, retired in 2019)

1988	Theodore Kardis Michelle Wiggins Jamal Green Lisa Moser	Horton Watkins HS Ladue Parway West HS, Baldwin Benton HS, St. Joseph Benton HS, St. Joseph	1989	Lori Cobb Anita Rao Jason Sutin Zoomer Truong	Carl Junction HS, Carl Junction Horton Watkins HS, Ladue Horton Watkins HS, Ladue Ursuline Academy, St. Louis
1990	Angela Nickelson Lisa Pearman Stephanie White Rebecca Wiggins	Potosi HS, Potosi Salisbury R-IV, Salisbury Carl Junction HS, Carl Junction Parkway West HS, Baldwin	1991	Jennifer Henry Amy Lawson Ray Myers Michael Wiggins	South Pemiscot HS, St. Louis Joplin JH, Joplin Eldon HS, Eldon Parkway West HS, Baldwin
1992	Monica Crane Amy Lawson Jenne Simmons Elizabeth Wiggins	Horton Watkins HS, Ladue Joplin HS, Joplin Monroe City HS, Monroe City Parkway West HS, Baldwin	1993	Amy Lawson Janelle Meyer Kamafi Byrd Jason Talley Renee Pope	Joplin HS, Joplin Joplin HS, Joplin Beaumont HS, St. Louis Joplin HS, Joplin Eldon HS, Eldon
1994	Reagan Oswald Laura Clinkingbeard Janelle Meyer Amy Lawson Jesse Kharbanda	Eldon HS, Eldon Francis Howell HS, St. Charles Joplin HS, Joplin Joplin HS, Joplin Parkway West HS, Baldwin	1995	Terry Baynes James Blomberg Thomas Newman Ian Wann	Pembroke Hill, Kansas City Versailles HS, Versailles Joplin HS, Joplin Central HS, St. Joseph
1996	Holly Hawkins Dorothea Lasky Melinda Lawrence Beth Lawson	Jefferson City HS, Jefferson City Ladue HS, St. Louis Joplin JH, Joplin Joplin HS, Joplin	1997	Deepa Mangalat Amy Matthew Brook Weber Beth Lawson	Joplin HS, Joplin Pembroke Hill, Kansas City Central HS, St. Joseph Joplin HS, Joplin
1998	Deepa Mangalat Millik Tella Amity Pecenka Julie Robinett	Joplin HS, Joplin Pembroke Hill, Kansas City Osage HS, Kaiser Osage HS, Kaiser	1999	Chris Byrd Brandon Lang Todd Miller Amity Pecenka	Osage HS, Kaiser New Franklin HS, New Franklin Lafayette HS, St. Joseph Osage HS, Kaiser
2000	John Fisher Ross Ruele Jennifer West Robbie Hart	Osage HS, Kaiser Central HS, St. Joseph Osage HS, Kaiser Cole R-V, Eugene	2001	NO AWARDS GIVEN	
2002	Siir Kilkis Mary Earnhart Tyler Lipp Chelsea Grigery	Greenwood HS, Springfield Lafayette HS, St. Joseph Osage HS, Kaiser Sikeston JH, Sikeston	2003	Michelle Whitesides Lainee Sybert Susan Brock	Hickman HS, Columbia School of the Osage, Kaiser Benton HS, St. Joseph
2004	Paul Whiteside Chelsea Grigery Kyle Tolbert Derrick Helton	Thomas Jefferson IDS, Joplin Sikeston HS, Sikeston School of the Osage, Kaiser Tuscumbia HS, Tuscumbia	2005	Chelsea Grigery Drew Sanning Anand Palaniappan Kristen Wright	Sikeston HS, Sikeston Tuscumbia HS, Tuscumbia Hickman HS, Columbia Tuscumbia HS, Tuscumbia
2006	Michael Stockwell Valerie Beu Katie Patterson Casey Freeman	Tuscumbia HS, Tuscumbia Tuscumbia HS, Tuscumbia Tuscumbia HS, Tuscumbia Mid-Buchanan HS, Faucett	2007	Kacie Wright Jordan Stevens Haleigh Wright Alyssa Ovaitt	Tuscumbia HS, Tuscumbia West Platte HS, Weston Mid-Buchanan HS, Faucett West Platte HS, Weston

## SENIOR HIGH POSTER COMPETITION AWARDS (CONT.)

2008	Brittany King Clayton Coulson Michelle Kropf Jordanne Wright	Tuscumbia HS, Tuscumbia West Platte HS, Weston Seneca HS, Seneca Seneca HS, Seneca	2009	Kayla Foulk Ethan Musick Sonia Rao	Camdenton HS, Camdenton Tuscumbia HS, Tuscumbia Camdenton HS, Camdenton
2010	Dylan Lyle Heather Lovell Jay Gulshen Jordanne Wright Jacob Byrne	Tuscumbia HS, Tuscumbia Tuscumbia HS, Tuscumbia Camdenton HS, Camdenton Seneca HS, Seneca Camdenton HS, Camdenton	2011	Bailee Slack Alexis Ash	Camdenton HS, Camdenton Tuscumbia HS, Tuscumbia
2012	Kelly Barnes Mingu Kim Koren Haley Thomas Palmer	St. Clair HS, St. Clair Hickman HS, Columbia Tuscumbia HS, Tuscumbia Camdenton HS, Camdenton	2013	Alexis Ash Rachel Harmon Bryant Heckart Cindy Jiang	Tuscumbia HS, Tuscumbia Camdenton HS, Camdenton Seneca HS, Seneca Central HS, St Joseph
2014	Bryant J. Heckart Shelby Huey Vincent Marco Monica Singh	Seneca HS, Seneca Camdenton HS, Camdenton Hartville HS, Hartville Central HS, St Joseph	2016	Kallie Davis Jade Samanta Jameson Gentry	Camdenton HS, Camdenton Saxony Lutheran HS, Jackson Mid-Buchanan HS, Faucett
2017	Dustin Bax Olivia Kline Vincent Khor Abigail Grimwood	Tuscumbia HS, Tuscumbia Camdenton HS, Camdenton Camdenton HS, Camdenton Tuscumbia HS, Tuscumbia	2018	Preston McDowell Je'anne Wegner Paige Ellefsen River Wise	Tuscumbia HS, Tuscumbia Camdenton HS, Camdenton Camdenton HS, Camdenton Camdenton HS, Camdenton
2019	Je'Anne Wagner Destinie Tunis Caleb Martonfi Lucas Mosher	Camdenton HS, Camdenton Eldon HS, Eldon Eldon HS, Eldon Camdenton HS, Camdenton			