

Junior Science, Engineering and Humanities Symposium

# STUDENT RESEARCH SHARING SESSION I



Missouri I Room  
8:00 p.m. - 10:00 p.m.



## BEHAVIOR

- **John Bachman**, “Effect of Socioeconomics Status on Purchasing Type,” Central High School, St. Joseph, Missouri, Jay Meyers, Sponsoring Teacher
- **Sierra Comer**, “The Effects of the SSRI Metabolite Norfluoxetine on Behavior, Fecundity and Morphology of *Daphnia magna*,” Camdenton High School, Camdenton, Missouri, Christopher Reeves, Sponsoring Teacher
- **Jay Gulshen**, “Predator Olfactory Cue Recognition: Developing a Training Protocol for Recognition of Non-Native Aquatic Predators,” Camdenton High School, Camdenton, Missouri, Christopher Reeves, Sponsoring Teacher
- **Robert Hutchinson**, “Determining Residents and Non-Residents Awareness of *Escherichia coli* Levels at the Lake of the Ozarks,” Camdenton High School, Camdenton, Missouri, Christopher Reeves, Sponsoring Teacher
- **Jonathan Kimbel**, “Refrigerator Browsing: Habitual or Circumstantial?” St. Charles West High School, St. Charles, Missouri, Heather Horstmann and Joan Twillman, Sponsoring Teachers
- **Dylan Lyle**, “A Study of the Perception of Human Pheromones,” Tuscumbia High School, Tuscumbia, Missouri, Constance Wyrick, Sponsoring Teacher
- **Paige Wood**, “Dying to be Beautiful: Investigating Psychological Motivations for Tanning,” Tuscumbia High School, Tuscumbia, Missouri, Constance Wyrick, Sponsoring Teacher

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# STUDENT RESEARCH SHARING SESSION II



Clayton Room  
8:00 p.m. - 10:00 p.m.



## EDUCATION

- **Caitlin Beckmeyer**, “The Affects of Speech and Music as Auditory Distractions on Short-Term Memory,” Camdenton High School, Camdenton, Missouri, Christopher Reeves, Sponsoring Teacher
- **Devin Ditto**, “The Ability of an Electronic Reader to Kindle Student Interest,” Maplewood-Richmond Heights High School, Maplewood, Missouri, Kathleen Dwyer, Sponsoring Teacher
- **Nicholas Huey**, “The Effect of Individual Behavior on Group Situational Perception,” Camdenton High School, Camdenton, Missouri, Christopher Reeves, Sponsoring Teacher
- **Heather Lovell**, “A Comparison of Visual and Haptic Information Processing in Children in Real and Virtual Settings,” Tuscumbia High School, Tuscumbia, Missouri, Constance Wyrick, Sponsoring Teacher
- **Abbey Martin**, “The Effects of Music on Learning and Testing Efficiency,” School of the Osage, Osage Beach, Missouri, Amanda Wersching, Sponsoring Teacher
- **Anna Morgan**, “Determining the Effectiveness of the New Missouri Legislation Requiring Kindergarteners to Receive Comprehensive Vision Examinations,” Camdenton High School, Camdenton, Missouri, Christopher Reeves, Sponsoring Teacher

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# STUDENT RESEARCH SHARING SESSION III



Atrium II Room  
8:00 p.m. - 10:00 p.m.



## ENVIRONMENTAL SCIENCE

- **Kyle Ahart**, “A Study of Embankment Erosion,” Tuscumbia High School, Tuscumbia, Missouri, Constance Wyrick, Sponsoring Teacher
- **Courtney Beckmeyer**, “Application of Native Sunflowers (*Helianthus occidentalis* and *Helianthus mollis*) for Roadside Heavy Metal Phytoremediation,” Camdenton High School, Camdenton, Missouri, Christopher Reeves, Sponsoring Teacher
- **Kyle Gulshen**, “The Effects of Wireless Internet Router Radiation on Mortality Rates of Darkling Beetles,” Camdenton High School, Camdenton, Missouri, Christopher Reeves, Sponsoring Teacher
- **Adam Kellerman**, “The Effect of Geographic Location on *Arabidopsis thaliana*,” Maplewood-Richmond Heights High School, Maplewood, Missouri, Kathleen Dwyer, Sponsoring Teacher
- **Cynthia Lam**, “Probiotics: Antibacterial Effects of Honey from Different Floral Sources on *Escherichia coli*,” Camdenton High School, Camdenton, Missouri, Christopher Reeves, Sponsoring Teacher
- **Emily Siebert**, “Carbon Sequestration of Plant Power Effluents Streams Using Plant Matrices,” Cor Jesu Academy, St. Louis, Missouri, William Joern, Sponsoring Teacher

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# STUDENT RESEARCH SHARING SESSION IV



Frontenac Room  
8:00 p.m. - 10:00 p.m.



## MICROBIOLOGY AND MEDICINE

- **Chelsey Carron**, “The Effects of Caffeine on *Micrococcus luteus* and *E. coli* Bacteria,” West St. Francois County High School, Park Hills, Missouri, Barb Steel, Sponsoring Teacher
- **Victoria Cope**, “The Effects of Heat on the Growth of *Enterobacter cloacae*,” School of the Osage, Osage Beach, Missouri, Amanda Wersching, Sponsoring Teacher
- **Victoria Fritchey**, “Investigating Statewide Bed Bug Infestation and Various Eradication Methods,” Tuscumbia High School, Tuscumbia, Missouri, Constance Wyrick, Sponsoring Teacher
- **Alisha Gray**, “Effects of Environmental Glycerol on the Hyperosmotic Response of *Saccharomyces cerevisiae*,” Mansfield High School, Mansfield, Missouri, Pam Probert, Sponsoring Teacher
- **Kaysha Ousley**, “Effects of Environmental Glycerol on the Hyperosmotic Response of *Saccharomyces cerevisiae*,” Mansfield High School, Mansfield, Missouri, Pam Probert, Sponsoring Teacher
- **Anna Waldschlager**, “A Determination of the Presence of Guard Bacteria in the Parenchyma Cells,” Pleasant Hope High School, Pleasant Hope, Missouri, Jim Flora, Sponsoring Teacher

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# STUDENT RESEARCH SHARING SESSION V



Atrium I Room  
8:00 p.m. - 10:00 p.m.



## PHYSICAL SCIENCES, ENGINEERING AND MATH

- **Adam Brandt**, “Characterizing Defects with Magneto Absorption,”  
Timberland High School, Wentzville, Missouri, Terrence Brennan,  
Sponsoring Teacher
- **Andrea Colson**, “Troubleshooting an Automatic Titration System,”  
Cor Jesu Academy, St. Louis, Missouri, William Joern, Sponsoring  
Teacher
- **Cameron Falk**, “Rocket Propulsion Based on Propellant Mixtures,”  
Pleasant Hope High School, Pleasant Hope, Missouri, Jim Flora,  
Sponsoring Teacher
- **Rachel Hagan**, “Bridge Structure,” Buffalo High School, Dan  
McCorkendale, Sponsoring Teacher
- **Cameron Nunn**, “Splitting Water with Sunlight: Discovering the  
Optimal Photocatalytic Metal Oxide Combination for the Production of  
Hydrogen Gas from Water,” Seneca High School, Seneca, Missouri,  
Shannon Sample, Sponsoring Teacher
- **Callie Sare**, “Comparison of Actual Milk Protein Content to Its  
Nutritional Labels,” Pleasant Hope High School, Pleasant Hope,  
Missouri, Jim Flora, Sponsoring Teacher

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# STUDENT RESEARCH SHARING SESSION VI



Manchester Room  
8:00 p.m. - 10:00 p.m.



## PHYSIOLOGY

- **Cierra Calloway**, “The Effects of Energy Drinks on the Performance of Athletes,” School of the Osage, Osage Beach, Missouri, Amanda Wersching, Sponsoring Teacher
- **Ann Letterman**, “Determining the Effects of Body Mass Index on Pheromone Intensity,” Camdenton High School, Camdenton, Missouri, Christopher Reeves, Sponsoring Teacher
- **Scott Morton**, “Calling all Germophobes: Can Your Cell Phone Make You Sick?” Elsberry High School, Elsberry, Missouri, Kenna Heitman, Sponsoring Teacher
- **Michele Painter**, “The Effect of Salinity on Root Development of *Arabidopsis thaliana*,” Elsberry High School, Elsberry, Missouri, Kenna Heitman, Sponsoring Teacher
- **Eric Sawyer**, “Modeling and Applications of Suppressor tRNAs to the Boolean Satisfiability Problem,” Central High School, St. Joseph, Missouri, Jay Meyers, Sponsoring Teacher
- **Della Spratt**, “The Effects of pH Levels on Mutant-Type *Arabidopsis thaliana* Gene bam 1-3,” Elsberry High School, Elsberry, Missouri, Kenna Heitman, Sponsoring Teacher