



Undergraduate Research Conference at Missouri S&T

Apr 11th, 2017

13th Annual Undergraduate Research Conference Winners

Missouri University of Science and Technology

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S&T announces Undergraduate Research Conference winners

ROLLA, Mo. – The winners of the 13th annual Undergraduate Research Conference at Missouri University of Science and Technology have been announced. The conference, which was held in April on the S&T campus, featured oral and poster exhibitions that represented work from students in nearly every major at Missouri S&T. Winners were awarded a cash prize of \$750. Second- and third-place finishers received \$500 and \$250, respectively.

During the conference, over 100 Missouri S&T students presented their current research projects to the public. For the full list of all the students who participated and their research abstracts, visit ugs.mst.edu/experientiallearning/ugrc.

The following students won poster presentation awards.

Poster Categories:

Arts and Humanities:

First place – Elisabeth DeStefano, a freshman in electrical engineering from Diamondhead, Mississippi, for research titled “A Perfect Storm: A Case Study Analysis of the Clinton and Trump Campaign.” The research advisor is Dr. Terry Robertson, associate teaching professor of speech and media studies.

Second place – Isabelle Kersting, a sophomore in English education from Flint Hill, Missouri, for research titled “Generic Mutation in the Eighteenth Century.” The research advisor is Dr. Rachel Schneider, assistant teaching professor of English.

Third place – Taylor McNamee, a freshman in English education from Licking, Missouri, for research titled “Cultural and Linguistic Variation on Campus: Developing a Survey on Linguistic Perceptions.” The research advisor is Dr. Sarah Hercula, assistant professor of English.

Engineering:

First place – Sarah Jemison, a senior in civil and architectural engineering from Nixa, Missouri, for research titled “Investigation of Bond Behavior of PBO Fiber-Reinforced Cementitious Matrix Composite on Low-Strength Concrete Interfaces.” The research advisor is Dr. Lesley Sneed, Stirrat Faculty Scholar and associate professor of civil, architectural and environmental engineering.

Second place – Ye Jin, a senior in chemical engineering from Beijing, China, for research titled “Optimal preparation of Fe/TiO₂ catalysts with highly enhanced photocatalytic activity using atomic layer deposition.” The research advisor is Dr. Xinhua Liang, assistant professor of chemical and biochemical engineering.

Third place – Michael Dalgetty, a sophomore in nuclear engineering from Rolla, Missouri, for research titled “Development of a low cost electron gun.” The research advisor is Dr. Joseph Graham, assistant professor of nuclear engineering.

Sciences:

First place – Mason Donnell, a senior in biological sciences from Willard, Missouri, for research titled “Investigating Cytokinetic Protein Homologs in Yeast.” The research advisor is Dr. Katie Shannon, associate teaching professor of biological sciences.

Second place – Madison Morris, a junior in biology from Tulsa, Oklahoma, and Greg Evans, a senior in biochemical engineering from Blue Springs, Missouri, for research titled “Altering the Behavior of Flies Using Optogenetics.” The research advisor is Dr. Thimgan, assistant professor of biological sciences.

Third place – Skye Tackett, a junior in physics from Kansas City, Missouri, for research titled “Nonequilibrium phase transitions in a model of ecological and evolutionary dynamics.” The research advisor is Dr. Thomas Vojta, Curator's Distinguished Professor of physics.

Social Sciences:

First place – Dawn Little, a senior in psychology from Union, Missouri, for research titled “Impact of Suspect Race on Perceived Legitimacy of Police Use of Force.” The research advisor is Dr. Jessica Cundiff, assistant professor of psychological science.

Second place – Sara Johnson, a freshman in psychology from St. Louis, for research titled “Self and Peer Perceptions of Ethical Behavior among Engineering Students.” The research advisor is Dr. Amber Henslee, assistant professor of psychological science.

Oral Categories:

Arts and Humanities:

First place – Joel Merz, a junior in history from Rolla, Missouri, for research titled “Thunder in the East: Wehrmacht versus RKKA.” The research advisor is Dr. Irina Ivliyeva, associate professor of Russian.

Engineering:

First place – Chase Herman, a junior in chemical engineering from Nixa, Missouri, for research titled “Cellular hitchhiking on microparticles to alleviate skin injury.” The research advisor is Dr. Sutapa Barua, assistant professor of chemical and biochemical engineering.

Second place – Caitlin Brocker, a senior in biochemical engineering from Crystal Lake, Illinois, for research titled “Heteromer Stars for the Treatment of Breast Cancer.” The research advisor is Dr. Sutapa Barua, assistant professor of chemical and biochemical engineering.

Third place – Meyyammai Palaniappan, a senior in chemical engineering from Doniphan, Missouri, for research titled “Dynamic Simulation of a Nanorod and a Polymer Molecule in a Microfluidic Device with a Complex Geometry.” The research advisor is Dr. Joontaek Park, assistant professor of chemical and biochemical engineering.

Sciences:

First place – Alexander Ayres, a senior in chemical engineering from Defiance, Missouri, for research titled “Effects of Phosphorylation on Dbf2.” The research advisor is Dr. Katie Shannon, associate teaching professor of biological sciences.

Second place – Alexandre Cristea, a sophomore in chemistry from Wentzville, Missouri, for research titled “Simultaneous Determination of Amino Acids in Urine by HPLC-MS/MS for Breast Cancer Risk Screening.” The research advisor is Dr. Yinfa Ma, associate dean for research and external relations and Curators' Distinguished Teaching Professor of chemistry.

Third place – Madison Mara, a senior in biological sciences from Rolla, Missouri, for research titled “Comparing Phenotypes of IQG1 Mutants.” The research advisor is Dr. Katie Shannon, associate teaching professor of biological sciences.

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