



Undergraduate Research Conference at Missouri S&T

Apr 10th, 2012 - 5:00 PM

8th Annual Undergraduate Research Conference Winners

Missouri University of Science and Technology

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8th Annual Undergraduate Research Conference Awards Winners

Oral Session Awards

Engineering Oral Session:

3rd Place – Timothy Collard – Prediction of Dual-Mode Spacecraft Propellant Performance of Binary and Ternary Ionic Liquid Mixtures – *Research Advisor, Dr. Joshua Rovey / Mechanical & Aerospace Engineering*

2nd Place – Anan Takroori – Experimental Study of Flow Mixing of Two Air Streams with Dissimilar Temperatures Using Flow Fabbles – *Research Advisor, Dr. Fathi Finaish / Mechanical & Aerospace Engineering*

1st Place – Samuel Pomeroy - Electromagnetism Surrounding Plasmoid Formation in an FRC Test Article - *Research Advisor, Dr. Joshua Rovey / Mechanical & Aerospace Engineering*

Sciences Oral Session:

3rd Place – Casey Burton – A Novel Enzymatic Technique for Determination of Sarcosine in Urine Samples - *Research Advisor, Dr. Yinfu Ma / Chemistry*

2nd Place – Matthew Willmering – Template-Free Electrodeposition of Freestanding MnO₂ Nanowires and Their Pseudo-Capacitive Properties, *Dr. Jay Switzer / Chemistry*

1st Place – Kristin Kelly – Computational identification and analysis of the PLA2 gene family in *Glycine max* - *Research Advisor, Dr. Ronald Frank / Biological Sciences*

Social Sciences Oral Session:

1st Place – Amanda Foster and Erica Shannon – The Effect of Education on the Public Opinion of Synthetic Biology - *Research Advisor, Dr. David Westenberg / Biological Sciences*

Arts and Humanities Oral Session:

3rd Place – Thomas Insall – Misfires: A Look at SMS Conversations and Clarity - *Research Advisor, Dr. Eric Bryan / History & Political Science*

2nd Place – Evan Menkes – Savages and Pig-men: An Exploration of the Relationship Between Humanity and Torture - *Research Advisor, Lindgren H Johnson / English & Technical Communication*

1st Place – Nathan Jarus – Old Ideas in a New Age: Descartes' Influence on Modern Animal Farming - *Research Advisor, Lindgren H Johnson / English & Technical Communication*

Poster Session Awards

Sciences Poster Session:

3rd Place – Marissa Spencer – If Rocks Could Talk, Oh What Tales Tekeze Could Tell -
Research Advisor, Dr. Mohamed Abdelsalam / Geological Sciences & Engineering

2nd Place – Krista Rybacki – Analysis of Flood Sediment Deposits Following the Taum Sauk Reservoir Failure, Reynolds County, Missouri - *Research Advisor, Dr. David Wronkiewicz / Geological Sciences & Engineering*

1st Place – Tiffany Edwards – The Therapeutic Effects of the Novel Thiol Antioxidant, N-acetylcysteine Amide (NACA), on Treating Rats with Grade I and Grade II Cataracts - *Research Advisor, Dr. Nuran Ercal / Chemistry*

Research Proposal Poster Session:

3rd Place – Heather Branstetter – Lactic Acid Bacteria from Sourdough and Impact on Gluten Sensitivity - *Research Advisor, Dr. David Westenberg / Biological Sciences*

2nd Place – David Pohlman – Synthetic Biology Approach to Create a Hybrid Extracellular Supramolecular Machine to Breakdown Free Mycolic Fatty Acids and a Feedback System to Produce a TB Inhibitory Peptide - *Research Advisor, Dr. David Westenberg / Biological Sciences*

1st Place – Tavia Hall – Exploring Asaia: Prevention of Malaria – *Research Advisor, Dr. David Westenberg / Biological Sciences*

Engineering Poster Session:

3rd Place – Husain Shekhani – The Effect of a Localized Mass Non-Uniformity on a Longitudinally Vibrating Piezoelectric Rod – *Research Advisor, Dr. Daniel Stutts / Mechanical & Aerospace Engineering*

2nd Place – Annelise Smith with Lucas Laughery, Gerald Holt and Sean Klover – Climate-Responsive Adaptive Control for Natural Ventilation - *Research Advisor, Dr. Joon-Ho Choi / Civil, Architectural & Environmental Engineering*

1st Place – Amanda Holmes – Seasonal Variation of Contaminant Concentrations In Planta - *Research Advisor, Dr. Dr. Joel Burken / Civil, Architectural & Environmental Engineering*

Social Sciences Poster Session:

2nd Place – Montana Puckett and Lee Voth-Gaeddert – PulaCloud Research - *Research Advisor, Dr. Dan Oerther / Civil, Architectural & Environmental Engineering*

1st Place – Amber Julien – S&T Male and Female STEM majors: Experiences with Discrimination and Adjustment - *Research Advisor, Dr. Dee Haemmerlie Montgomery / Psychology*

2012-13 OURE Fellows / Award Recipients:

1. **Clayton Buback and Patrick McCarver** – Assembly of Polymeric Nanoparticles into Fibers versus Clusters: Experiment and Simulation - Dr. Nicholas Leventis and Dr. Chariklia Sotiriou-Leventis/Chemistry, Physics and Chemical Engineering, Research Advisors