



Undergraduate Research Conference at Missouri S&T

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Apr 7th, 2010 - 5:00 PM

## 6th Annual Undergraduate Research Conference Winners

Missouri University of Science and Technology

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# 6<sup>th</sup> Annual Undergraduate Research Conference Awards Ceremony, April 7, 2010

## Oral Session Awards

### Engineering Oral Session:

**3<sup>rd</sup> Place – Jeffrey Ahrendts** - Latency & Area Measurement and Optimization of Asynchronous Nanowire Crossbar System – *Research Advisor, Dr. Minsu Choi / Electrical & Computer Engineering*

**2<sup>nd</sup> Place – Andrew Heckman** - Modeling of Plasma Actuator Body Force – *Research Advisor, Dr. Joshua Rovey / Mechanical & Aerospace Engineering*

**1<sup>st</sup> Place - Andrew Adams, Benjamin Brannon and Cory Brennan** - Concentrating Photovoltaic and Thermal Collector - *Research Advisor, Dr. Stuart Baur / Civil, Architectural & Environmental Engineering*

### Sciences Oral Session:

**3<sup>rd</sup> Place – Stephen Jackson** - Visualization of Deadlock Detection Via Dihomotopic Progress Shell Decomposition - *Research Advisor, Dr. Bruce McMillen / Computer Science*

**2<sup>nd</sup> Place – Karen Schilli** - Genomic Analysis of the BCA Sequence 3 Gene Family in Glycine Max - *Research Advisor, Dr. Ronald Frank / Biological Sciences*

**1<sup>st</sup> Place – Nathaniel Carter and Megan Oldroyd** - A Systematic Investigation into the Hydrothermal Degradation of Biomass as a Renewable Alternative Fuel Source - *Research Advisor, Dr. Klaus Woelk / Chemistry*

### **Social Sciences Oral Session:**

**2<sup>nd</sup> Place - Angela Hundt** - The Dark Side of Leadership Personality among Developing Military Officers - *Research Advisor, Dr. Jim Martin / Psychology*

**1<sup>st</sup> Place - Samantha Schussele** - Statistical Analysis of Baseball Attendance after a White Flag Trade - *Research Advisor, Dr. Michael Davis / Economics & Finance*

### **Arts and Humanities Oral Session:**

**2<sup>nd</sup> Place - Amanda Amsden** - Like, What's the Deal With Like? - *Research Advisor, Eric Bryan / English & Technical Communication*

**1<sup>st</sup> Place - Adam Smith** - The Rescue of the Danish Jews - *Research Advisor, Shannon Fogg / History & Political Science*

### **Poster Session Awards**

#### **Sciences Poster Session:**

**3<sup>rd</sup> Place – Drew Menke** - Phosphorus Dynamics in an Ozark Stream and a Hyper-Eutrophic Lake in East Central Missouri - *Research Advisor, Dr. Dev Niyogi / Biological Sciences*

**2<sup>nd</sup> Place - Nichole Hurd, Meghan Ray and Daniel Roush** - Isolation and Implementation of the Electron Shuttling Pathway from Geobacter into Escherichia coli - *Research Advisor, Dr. David Westenberg / Biological Sciences*

**1<sup>st</sup> Place - Ashley Muehler and Crystal Halloran** - Use of Endophytic Bacteria for Growth Promotion and Toxicity Resistance in Leachate Treated Poplar Trees - *Research Advisor, Dr. David Westenberg / Biological Sciences*

#### **Research Proposal Poster Session:**

**3<sup>rd</sup> Place – Dominique Nocito** – Measurement of the Production of Beta-1,4-endoglucanase by Genetically Engineered Bacteria - *Research Advisor, Dr. Harvest Collier / Chemistry*

**2<sup>nd</sup> Place – Kathryn Boardman and Crystal Twenter** – Fold Classification of the Kalabsha and Seyal Fault Region - *Research Advisor, Dr. John Hogan / Geological Sciences & Engineering*

**1<sup>st</sup> Place – Caroline Fernandez**, The Role of Preexisting Basement Structures During Continental Collision: Insights from Analog “Sandbox” Modeling – *Research Advisor, Dr. John Hogan / Geological Sciences & Engineering*

### **Engineering Poster Session:**

**3<sup>rd</sup> Place - Travis Hemsath and Matthew Struempf** - IED Crater Repair for Enduring Route Remediation – *Research Advisor, Dr. John Myers / Civil, Architectural & Environmental Engineering*

**2<sup>nd</sup> Place - Pei Chuen Chia** - Modeling Preformed Particle Gel Swelling (PPG) and Deswelling Kinetics - *Research Advisor, Dr. Baojun Bai / Geological Sciences & Engineering*

**1<sup>st</sup> Place - Timothy Peters** - Effects of Mechanical Tolerances on Realized Attenuation - *Research Advisor, Walter Eversman / Mechanical & Aerospace Engineering*

### **Social Sciences Poster Session:**

**3<sup>rd</sup> Place - Jodi Paul and Lauren Summerville** - Cognitive and Personality Predictors of Attitudes Toward Genetic Research - *Research Advisor, Dr. Jaqueline Bichsel / Psychology*

**2<sup>nd</sup> Place - Ashley Nelson and Travis Gibson** - Development of a Survey Assessing Attitudes Toward Genetic Research - *Research Advisor, Dr. Jaqueline Bichsel / Psychology*

**1<sup>st</sup> Place – Leslie Hagen** - Predictive and Convergent Validity of Ability-Based Emotional Intelligence Assessments - *Research Advisor, Dr. James Martin / Psychology*

**2010-11 OURE Fellows / Award Recipients:**

1. **Nichole Hurd, Meghan Ray and Daniel Roush** – Microbial Fuel Cell - Dr. David Westenberg/Biological Sciences, Research Advisor
2. **Emily Briggs, Luke Jones, Matthew Ortel and Chris Vincent** – Mine Exploration Platform - Dr. Douglas Bristow/Mechanical & Aerospace Engineering and Dr. Kwame Awuah-Offei/Mining & Nuclear Engineering, Research Advisors
3. **Jedidiah Hobbs and David Madsen** – Web Accessible Pharmaceutical Database, Dr. Joe Stanley, Dr. Bijaya Shrestha, Dr. Randy Moss and Dr. Van Stoecker/Electrical and Computer Engineering, Research Advisor