

## OCSE Graduate Student Research Grants

### ***Agriculture***

Beverly Gartland, (Dr. Jennifer Gill)

*Nutritional Issues of Geriatric Horses: Ingestion Versus Digestion*

**AWARDED \$2,453.56**

### ***Biology***

Taylor McRoberts, (Dr. Scott Grubbs)

*The Stoneflies (Insecta, Plecoptera) of Mammoth Cave National Park –Assessing Patterns of Species Richness, Commonness vs. Rarity, and Affinities with Available Habitats*

**AWARDED: \$895.15**

Madeline Metzger (Dr. Scott Grubbs)

*The Stoneflies (Plecoptera) of the Black Mountains – Assessing Patterns of Diversity Hotspots, Elevation Gradients, and Potential for Regional Species Loss*

**AWARDED: \$2,861.59**

Lauren Kappel, (Dr. Steve Huskey)

*Substrate-Borne Vibrational Communication in Veiled Chameleons During Courtship and Breeding*

**AWARDED: \$3,000.00**

Meghan Hall,

*Seasonal Movement Patterns of Benthic Fish in Headwater Streams of a Reservoir - Riverine Habitat Complex Upstream of the Barren River Dam*

**AWARDED \$2,776.00**

Wesley Payette,

*Assessment of Fitness Costs Associated with Drug-Induced Sleep Inhibition in Arctic-Breeding Lapland Longspurs (*Calcarius lapponicus*) Snow Buntings (*Plectrophenax nivalis*)*

**AWARDED \$3,000.00**

Kyle Whorrall, (Biology)

*Documenting the Unexplored Diversity of Peruvian Spider Beetles*

Requesting \$3,000.00, **AWARDED \$3,000.00**

### ***Chemistry***

Jae Ko, (Dr. Kevin Williams)

*Different Reactions of 5' -Guanosine Monophosphate and N-Acetyl-L-Methionine on a Platinum Tri-Ammine Complex with a Seven-Membered Ring*

**AWARDED: \$1,137.00**

Jenna Cantway, (Dr. Les Pesterfield)

*Mechanochemistry: Solvent-Free Synthesis of Metal Coordination Compounds using Ball Mills*

**AWARDED: \$2,145.00**

Ban Wang, (Dr. Yongming Deng)

*The Catalytic Methodology Development of Iron Catalysts for Carbene Transfer Reactions*

**AWARDED: \$2,991.00**

Jonathan Markham, (Dr. Yongming Deng)

*Pyridine N-Oxides Assisted Activation of Alkynes by Visible Light Photo-Redox Light Catalysis*

**AWARDED: \$2,964.00**

Amanda Houchens, Chemistry (Dr. Cathleen Webb)

*Analysis of Mercury and Trace Metals in Bat Guano*

**Awarded \$2,725.00**

Viral Bhavsar, (Dr. Eric Conte)

*The Effects of Antibiotics on Methane Production from Anaerobic Digestion*

**AWARDED \$2,766.30**

## **Geography & Geology**

Zachary Creech, (Dr. Michael May)

*Lithological Character and Sequence Stratigraphy of the Ste. Genevieve Limestone in Western Kentucky*

**AWARDED: \$1,357.00**

Jason Fox, (Dr. Leslie North)

*An Index-Based Assessment of Tourism Development Impacts in Cold-Climate Coastal Landscapes*

**AWARDED: \$1,000.00**

Adam Mattson, (Dr. Nahid Gani & Dr. Royhan Gani)

*Structural Reconstruction of the Chandon, Vos, and Yellowglen Gas Discoveries in the Northern Carnarvon Basin, Australia*

**AWARDED: \$1,205.00**

Charles O'Connell, (Dr. Chris Groves)

*Developing New Tools to Study the Karst Hydrogeology of a Pristine Groundwater Flow System: Great Onyx Spring, Mammoth Cave National Park, Kentucky*  
**Awarded \$2,965.00**

Jacob Grigsby, (Dr. Nahid Gani)  
*Incision History of the Northwestern Ethiopian Plateau: Insights from Low-Temperature Apatite Thermochronology*  
**AWARDED \$2,453.56**

Anna Harris, Geography & Geology (Dr. Kambesis)  
*Quantifying the Impacts of Timber Harvest on Karst Systems in the Tongass National Forest, Alaska.*  
Requesting \$3,000.00 - **AWARDED \$2,453.56**

### ***Physics & Astronomy***

Bektur Adisatarov, (Dr. Ali Oguz Er)  
*Nanosecon Pulsed Laser Deposition of Lead Thin Film on Silicon*  
Requesting \$2,990.82, **AWARDED: \$ 2,990.82**

Ermek Belekov, (Dr. Ali Oguz Er)  
*Pathogenic Bacterial Deactivation in Human Blood Using Silver Nanoparticles as a Photodynamic Therapy Agent*  
**AWARDED: \$2,678.00**

### ***Psychological Sciences***

Mallory Hughes, (Dr. Matthew Shake)  
*The Effects of Aging and Bilingualism in an Emotional Stroop Task*  
**AWARDED: \$2,905.00**

Alyssa Minton, (Dr. Andrew Mienaltowski)  
*Age Differences in the Impact of Gaze Direction and Context on Emotion Perception*  
**AWARDED: \$950**

Robert Twidwell, (Dr. Lance Hahn)  
*Perception of a Therapist Using Jargon in a Text Message-Based Session*  
**AWARDED: \$1,440.00**

Romin Geiger, (Psychological Sciences)  
*Preschool Self-Regulation: A Predictor of School Readiness*  
Requesting \$1,035.00, **AWARDED \$1,035.00**