

## Undergraduate Award Winners- 2017 Student Symposium

### I. Science, Technology, Engineering and Mathematics

#### Oral Presentations:

**1<sup>st</sup> Place:** Jennifer Kaczmarek, “Direct production of human engineered cardiac tissues by pluripotent stem cell encapsulation in gelatin methacryloyl” (Chemical Engineering)

**2<sup>nd</sup> Place:** James Smith, “Multi-Bend Antenna Optimization by Genetic Algorithms” (Electrical Engineering)

**3<sup>rd</sup> Place:** Jiyeong Choi, “Patterns of Ni concentration among populations of the high-Ni insect *Melanotrichus boydi* (Hemiptera: Miridae), a specialist on the Ni hyperaccumulator plant *Streptanthus polygaloides* (Brassicaceae)” (Biological Sciences)

#### Poster Presentations:

**1<sup>st</sup> Place:** David Hall, “Controlling size and surface properties of PLGA nanoparticles for vaccine delivery system” (Chemical Engineering)

**1<sup>st</sup> Place:** Ethan Hofer, “Controlling the ion distribution in electroactive polymers for more dynamic actuation response” (Materials Engineering)

**2<sup>nd</sup> Place:** Marlee Morgan, “*In vivo* effects of deepwater horizon crude oil and corexit dispersant on rodent hematological markers” (Microbiology)

**2<sup>nd</sup> Place:** Trevor Cofer, “Fresh market tomato yield and quality as affected by potassium rates and sources” (Crop, Soil, and Environmental Sciences)

**3<sup>rd</sup> Place:** Philip Wang, “Role of carotenoids as antioxidants in *Tigriopus californicus*” (Biological Sciences)

### II. Social Science and Creative Scholarship in Design, Arts and Humanities

#### Oral Presentations:

**1<sup>st</sup> Place:** Kelsie Shipley, “The unpublished *Roman à Clef*: private fiction and public figures at the turn of the 19<sup>th</sup> century in *The Navy Officer*” (English)

**2<sup>nd</sup> Place:** Hannah Skjellum, “Reviving the mother of the blues: a continuation of the reconsideration of Ma Rainey as an important black queer figure” (English)

**3<sup>rd</sup> Place:** Katie Brown, “Researching food insecurity at Auburn University” (Global Education)

#### Poster Presentations:

**1<sup>st</sup> Place:** Crystal Harrell, “Reconstructing post-emancipation communities through the preservation of African American cemeteries” (Sociology, HDFS)

**2<sup>nd</sup> Place:** Peyton Camp, “Understanding engagement and motivation in learning a complex motor skill” (Kinesiology)

**3<sup>rd</sup> Place:** Natalie Stephens, “Teaching spatial visualization in chemistry” (Curriculum and Teaching)

## Graduate Award Winners- 2017 Student Symposium

### I. Science, Technology, Engineering and Mathematics

#### Oral Presentations:

**1st Place:** Rakish Shrestha, "Fatigue modeling of a thermoplastic polymer under mean strain and variable amplitude block loadings" (Mechanical Engineering)

**2nd Place:** Zhongtian Zhang, "*In situ* esterification and extractive fermentation for butyl butyrate production with *Clostridium tyrobutyricum*" (Biosystems Engineering)

#### **3rd Place (tied):**

>Ferdous Finklea, "Manufacturing functional engineered cardiac tissue spheroids using a custom microfluidic system" (Chemical Engineering)

>Andre Hansford, "The effects of pH on aqueous cellulose nanocrystal dispersions' rheology and phase behavior" (Chemical Engineering)

#### **Poster Presentations:**

**1st Place:** Morgan Ellis, "Encapsulation of patient-derived pluripotent stem cells to study congenital heart disease" (Chemical Engineering)

**2nd Place:** Ricky Whitener, "Development and characterization of DNA aptamers targeting Small Cell Lung Cancer cells" (Chemical Engineering)

**3rd Place:** Ford Dyke, "Effects of 'green' stimuli neurocognitive function: An ERP study" (Kinesiology)

### II. Social Science and Creative Scholarship in Design, Arts and Humanities

#### Oral Presentations:

**1st Place:** Ian Cero, "Suicidal behavior as a network of causally connected symptoms: A new strategy for prevention" (Psychology)

**2nd Place:** Dawn Michaelson and Sarah Gascon, "Interdisciplinary research: Improving compression garments for women athletes" (Creative Scholarship)

**3rd Place:** Julio Yanes, "Dissociable meta-analytic networks contribute to post-traumatic stress disorder (PTSD)" (Psychology)

#### **Poster Presentations:**

#### **1st Place (tied):**

>Steven Boomhower, "Adolescent methylmercury and d-amphetamine exposure alter sensitivity to monoamine uptake inhibitors in adulthood" (Psychology)

>Paige Hartman "The relationship between decision making behavior and the work-life interface" (Psychology)

**3rd Place:** Justin Owensby, "Leveraging behavioral economics-based interventions to improve medication adherence" (Health Outcomes)