Oral Session One | 9:00am - 10:00am

**Microbiology - Room 236**

Alyssa Hall*, Lenoir-Rhyne University. *The Effect of Carbon Source and Essential Oil on the Morphology and Growth of Aspergillus niger*


Lauren Haymore*, Melanie Lee-Brown, Michele Malotky, Guilford College. *Testing antibiotic properties of plants used in traditional medicine*

Nathan Lee*, Guilford College. *The effect of a recombinant hydrolytic enzyme on hybrid biofilms of Staphylococcus aureus and Candida albicans*

**Genetics - Room 237**

Hannah Lee*, John Tomkiel-Dean, University of North Carolina Greensboro. *Cytological and genetic characterization and mapping of a male meiotic mutation (Z20756) in Drosophila melanogaster*

Rohini Rajnarayanan*, Melanie Lee-Brown, Martin Kang, Guilford College. *CRISPR/Cas9 gene modification of the FMN riboswitch in Klebsiella pneumoniae*

Abbi L. Stacherski*, Lenoir-Rhyne University. *Investigating the effects of gibberellic acid on cell growth in pumpkins (C.pepo)*

Zack Zapatero*, Gregory Swan, Sophia Sarafova, Davidson College. *Deciding To Be A Helper: Exploring The In Vivo Function Of The Cd4 Enhancer NCE*

**Ecology - Room 244**

Audrey Hoffman*, Jay Bolin, Catawba College. *VOC interference limits host detection of the parasitic plant Cuscuta gronovii*

Fawna Wyatt*, Mallory Norris, Anthony Cleator, Thomas Hancock, Middle Georgia State University. *Adaptive strategies of Hydrocotyle bonariensis growing on southeastern (USA) barrier islands*


**Biotechnology & Engineering - Room 242**


Miguel Sanchez*, Nicole Flanagan, Todd Steck, 'Lenoir-Rhyne University and 2University of North Carolina Charlotte. *Collateral sensitivity: identification of Burkholderia multivorans bacterial mutants through PCR and gel electrophoresis*

Luis Alejandro Royo Romero*, Yvonne Kinsella, W. Christopher Hughes, Brian H. Augustine, Xiaofeng (Harry) Hu, 'High Point University and 2James Madison University. *Functionality of Chloroform Treatment to Improve Adhesion of Deposited Au Thin Films on PMMA*

**Zoology - Grave Collaboratorium**

Emma Eskeland*, Jen Hamel, Elon University. *Examining two closely related species for evidence of selection against hybridization*

Dawson Nance*, Jen Hamel, Elon University. *Examining the effects of parasitism on female mate choice and copulation duration*
Oral Session Two | 10:15am - 11:15am

Cellular & Developmental Biology - Room 236
Luke Lynch*, Jeff Haswell, and Frank Slack, Lenoir-Rhyne University. **Exploiting synthetic lethal relationships within the SWI/SNF chromatin remodeling complex via miRNAs**
Katherine Rentschler*, R.T. Long, K. Smith, K. Farrizato, L. Elliot, C. Mundell, H. Romin, B.A. Bahr, University of North Carolina Pembroke. **Ongoing assessments of the physiological and behavioral effects of the Cathepsin B enhancing agent PADK in models of Mild Cognitive Impairment (MCI) and in aged and 3xtg-AD mouse models of Alzheimer's disease**
Adam Slaght*, Lenoir-Rhyne University. **The regenerative growth effects of growth differentiation factor 11 (GDF-11), myostatin, and follistatin on Lumbriculus variegatus** (California blackworm)
Cary Mundell*, Morgan Pait, Heather Romine, Ben Bahr, University of North Carolina Pembroke. **Study of a positive lysosomal modulator for treating age related brain dysfunction**

Environmental Science - Room 237
Jessica Knisley*, Meredith College. **Cyanobacteria Versus Our Waters**
Georgia Ackerman*, Warren Wilson College. **Soil Compaction Under Two Different Watering Methods**
Elizabeth Gerdes*, Devang Upadhayay, Leonard Holmes, University of North Carolina Pembroke. **Xenorhabdus nematophilus Growth Kinetic Study using 2L A plus Sartorius Stedim Biostat® Fermentation System**
Haley Griffith*, Melanie Lee-Brown, Christine Richard-Stracey, Guilford College. **Break it down! The effect of moisture on decomposition rates**

Ecology & Behavioral Sciences - Room 241
Gabrielle Resh*, Dave Gammon, Elon University. **Do mockingbirds normally copy their mimetic song directly from model species, or from other mockingbirds?**
Carmen Mesa*, Evan Poag, Christine T. Richard, Guilford College. **Eastern Bluebird Nest Sanitation**
Caroline Balch*, Emma Cunningham, Susan McRae, East Carolina University. **Do female Eastern bluebirds trade-off egg size with clutch size?**

Health Science - Room 242
Sarah Edmark*, Lexi Lambros, Patrick Vigueira, High Point University. **Methylglyoxal sensitizes Bacillus oleronius to topical antibiotics**
Meagen Lee*, Stephen Cartier, Dana Emmert, Robert Eckstein, Liesl Erb, Warren Wilson College. **Comparative antioxidant levels in popular dog food brands**

*main presenter | ‘member of the CANCAS collegiate academy
Taylor Mckee*, Lenoir-Rhyne University. The effects of tetracycline and erythromycin on mitochondria activity as demonstrated by regeneration rate in Lumbriculus variegatus

**Oral Session Three | 3:20pm - 4:20pm**

**Microbiology - Room 236**
Reynaldo Diaz*, University of North Carolina Greensboro. A high magnification microscopy study: The interaction, adhesion between surfaces and microbes in the formation of biofilms
Waite R. Warren*, Dennis R. LaJeunesse, University of North Carolina Greensboro. Green synthesis of copper oxide nanofeathers grown on a bacterial nanocellulose substrate

**Science Education - Room 237**
David Beamer*, Nash Community College. Undergraduate Research In A Community College Setting

**Botany - Room 241**
Liane Ventura*, Jeffrey Holmes, Warren Wilson College. Seasonal variation of phyllosphere bacteria
My Abdelmajid Kassem¹*, Masum Akond¹, Stella K. Kantartzí², Khalid Meksem³, Nacer Bellaloui³, David A. Lightfoot², ¹Fayetteville State University, ²Southern Illinois University and ³USDA Crop Genetics Research Unit. Quantitative Trait Loci (QTL) Mapping of Protein, Oil, and Fatty Acids’ Contents in two Recombinant Inbred Line (RIL) Populations of Soybean

*main presenter | ‘member of the CANCAS collegiate academy