

ABT 395 Spring 2023 Student Presentations
Tuesday, April 18, 2023
Cameron Williams Hall, Plant Science Building

8:55 AM Aardra Kachroo Welcome & Introductions

9:00-9:15AM Hanna Conklin Repurposing FDA-approved drugs to resensitize p53 mutant diffuse intrinsic pontine glioma (DIPG) cells to irradiation

Mentor: Jessica Blackburn, Ph.D., Department of Cellular and Molecular Biochemistry, College of Medicine

9:15-9:30AM Lily Berry Interactions between DNA mismatch repair and postreplication repair

Mentor: Eva Goellner, Ph.D., Department of Toxicology and Cancer Biology, College of Medicine

9:30-9:45AM Evaluating the performance of three techniques for diagnosing equine tapeworm infection

Mentor: Martin Nielsen, Ph.D., Department of Veterinary Science, College of Agriculture, Food & Environment

9:45-10:00AM Mary Beth Matocha Targeting lipid metabolism to improve efficacy of BRAF-targeted therapy in colorectal cancer

Mentor: Yekaterina Zaytseva, Ph.D., Department of Toxicology and Cancer Biology, College of Medicine

10:00-10:15AM Izzy Lytle Molecular barcode analysis of culturable yeast in Kentucky native plants

Mentor: Carlos Rodriguez-Lopez, Ph.D., Department of Horticulture, College of Agriculture, Food & Environment

10:15-10:30AM Trevor Reid The effects on root phenotypes from breeding dwarf corn varieties

Mentor: David McNear, Ph.D., Department of Plant and Soil Sciences, College of Agriculture, Food & Environment

10:30-12:55PM Lunch Break

1:00-1:15PM Virginia Lyle Serum and saliva insulin responses of insulin dysregulated horses after an oral sugar test

Mentor: Amanda Adams, Ph.D., Department of Veterinary Science, College of Agriculture, Food & Environment

1:15-1:30PM Justin Wong Surface level sterilization techniques and its effect on DNA sampling within *Cannabis sativa*

Mentor: Nicole Gauthier, Ph.D., Department of Plant Pathology, College of Agriculture, Food & Environment

1:30-1:45PM Megan Dakoske Optimizing *Clostridium perfringens* for validation of cooling processes for meat products

Mentor: Melissa Morgan, Ph.D., Department of Animal and Food Sciences, College of Agriculture, Food & Environment

1:45-2:00PM Shanna McClung Assessing the toxicity of nano-mediated nitrogen fertilizers and surfactant in *C. elegans*

Mentor: Olga Tsyusko-Unrine, Ph.D., Department of Plant and Soil Sciences, College of Agriculture, Food & Environment

2:00-2:15PM Maddie Sample Identifying potential reversal agents for heparin

Mentor: Jeremy Wood, Ph.D., Department of Cellular and Molecular Biochemistry, College of Medicine

ABT395 Spring 2023 Student Presentations
Thursday April 20, 2023
Cameron Williams hall, Plant Science Building

8:55 AM Aardra Kachroo Welcome & Introductions

9:00-9:15AM Gio DeSantiago Carrera Protein-protein interactions in the systemic acquired resistance signaling pathway
Mentor: Aardra Kachroo, Ph.D., Department of Plant Pathology, College of Agriculture, Food & Environment

9:15-9:30AM Meghana Gazula Investigating the pathological effects of TDP-43 on brain metabolism and neurovascular coupling in a TDP-43 transgenic mouse model
Mentor: Maj-Linda Selenica, Ph.D., Department of Cellular and Molecular Biochemistry, College of Medicine

9:30-9:45AM Madeline O'Daniel Targeting nicotinamide N-methyltransferase to enhance aged skeletal muscle regenerative capacity
Mentor: Christopher Fry, Ph.D., Department of Athletic Training and Clinical Nutrition, College of Health Sciences

9:45-10:00AM Afeef Shaik Sensory organization test scores in equestrians and concussion history
Mentor: Kimberly Tumlin, Ph.D., Department of Epidemiology & Environmental Health, College of Public Health

10:00-10:15AM Michael Schlueter Inhibiting expression of CPSF30 in *Trifolium pratense* with dCas9 interference
Mentor: Arthur Hunt, Ph.D., Department of Plant & Soil Sciences, College of Agriculture, Food & Environment

10:15AM-12:55PM Break

1:00-1:15PM Trinity Love Utilizing *Agrobacterium rhizogenes* to induce hairy roots in red clover with a gene knockout involved in nodulation
Mentor: Randy Dinkins, Ph.D., Forage-Animal Production Research Unit, USDA-ARS

1:15-1:30PM Ava Crawford The relevance of PRL-3 in T-ALL
Mentor: Jessica Blackburn, Ph.D., Department of Molecular and Cellular Biochemistry, College of Medicine

1:30-1:45PM Phocheng Ngy Response of *Caenorhabditis elegans* to two stressors, silver nanoparticles and *Klebsiella pneumoniae*
Mentor: Olga Tsyusko-Unrine, Ph.D., Department of Plant and Soil Sciences, College of Agriculture, Food & Environment

1:45-2:00PM Gretchen Ruschman Breeding for a more sustainable agriculture: Elucidating the role of DNA methylation on soil microbial community assembly
Mentor: Carlos Rodriguez-Lopez, Ph.D., Department of Horticulture, College of Agriculture, Food & Environment

2:00-2:15PM Alicia Harriman Effect of organic matter type on formation of chlorinated drinking water disinfection byproducts in the presence of elevated bromide concentrations
Mentor: Jason Unrine, Ph.D., Department of Plant & Soil Sciences, College of Agriculture, Food & Environment

2:15-2:30PM Caitlynn Bryant Biochemical analysis of novel DNA binding proteins in the gastric bacterium *Helicobacter pylori*
Mentor: Carrie Shaffer, Ph.D., Department of Veterinary Science, College of Agriculture, Food & Environment

2:30-2:45PM Sai Deepshikha Bassetti Nayakwadi LEA 14 and ABI3 effects on the completion of seed germination
Mentor: Bruce Downie, Ph.D., Department of Horticulture, College of Agriculture Food & Environment