

ABT395 Fall 2022 Presentations
Tuesday, November 29, 2022
Cameron Williams Hall, Plant Science Building

8:55 AM Aardra Kachroo Welcome & Introductions

9:00-9:15 AM Peyton Coburn Unlocking GPCPD1's secret; Discovering the role of a possible oncogene
Mentor: Ramon Sun, Ph.D., Department of Neuroscience, College of Medicine

9:15-9:30 AM Caleb Gooden Back to the roots: Characterizing alternative polyadenylation and use of differential TAS3 site choice in root development of *Trifolium pratense* and *Medicago truncatula*
Mentor: Arthur Hunt, Ph.D., Department of Plant and Soil Sciences, College of Agriculture, Food and Environment

9:30-9:45 AM Elisabeth Rintamaa Brain metabolic phenotyping in honeybees provides new insights into traumatic brain injury
Mentor: Clare Rittschof, Ph.D., Department of Entomology, College of Agriculture, Food and Environment

9:45-10:00 AM Ariana Spina Origin of MSTN variant for speed in horses: Thoroughbred or Turkoman
Mentor: Ernest Bailey, Ph.D., Department of Veterinary Science, College of Agriculture, Food and Environment

10:00-10:15 AM Kiera Carlisle Developmental color changes in *Neodiprion lecontei*
Mentor: Catherine Linnen, Ph.D., Department of Biology, College of Arts and Sciences

10:15-10:30 AM Georgia Avery Characterization of diverse *Fusarium sporotrichoides* isolates from Hemp
Mentor: Nicole Gauthier, Ph.D., Department of Plant Pathology, College of Agriculture, Food and Environment

10:30-10:45 AM Erin Thomas Detection and identification of *Fusarium* spp. causing *Fusarium* Head Blight (FHB) on hemp
Mentor: Nicole Gauthier, Ph.D., Department of Plant Pathology, College of Agriculture, Food and Environment

10:45-11:00 AM Kristin Carlton Investigating what role gene 356 plays in neurotropic infection of *Listeria monocytogenes*
Mentor: Sarah D'Orazio, Ph.D., Department of Microbiology, Immunology, and Molecular Genetics, College of Medicine

11:00-11:15 AM Amber Dotson Uniquely Kentucky wines: Bioprospecting the native flora for novel microorganisms
Mentor: Carlos Rodriguez Lopez, Ph.D., Department of Horticulture, College of Agriculture, Food and Environment

11:15-11:30 AM Jena Malone Evaluation of renal function in a hypertense rat model due to in utero morphine exposure by assessing chronic glomerular filtration rate
Mentor: Analia Loria, Ph.D., Department of Pharmacology and Nutritional Sciences, College of Medicine

11:30-11:45 AM 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 and Environment

ABT395 Fall 2022 Presentations
Friday, December 2, 2022
Cameron Williams Hall, Plant Science Building

10:25 AM Aardra Kachroo Welcome & Introductions

10:30-10:45 AM Reagan Knight Developing a novel zebrafish model to define the role of the PRL phosphatases in development and cancer

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

10:45-11:00 AM Ashley McGrath The functional effects of eccrine sweating from transdermal compound movement

Mentor: Thad Wilson, Ph.D., Department of Physiology, College of Medicine

11:00-11:15 AM Lucca Madeo Cortarelli Nanoparticle delivery of plant hormones to *Artemisia annua* hairy roots to increase elicitation of bioactive metabolites

Mentor: John Littleton, Ph.D., Naprogenix, Inc.

11:15-11:30 AM Using data sonification to further understanding of molecular processes

Mentor: Luke Bradley, Ph.D., Department of Neuroscience, College of Medicine

11:30-11:45 AM Sofia Rashid Truffle inoculation with pecans

Mentor: Seth DeBolt, Ph.D., Department of Horticulture, College of Agriculture, Food and Environment

11:45-12:00 PM Michael Buoncristiani Lasering in on the Appalachian lung cancer disparity with MALDI-MSI

Mentor: Ramon Sun, Ph.D., Department of Neuroscience, College of Medicine

12:00-12:55 PM LUNCH

1:00-1:15 PM Autumn Rodgers DNA extraction and purification, observing a single GALACTOKINASE gene in both *Arabidopsis thaliana* and *Zea mays*

Mentor: Bruce Downie, Ph.D., Department of Horticulture, College of Agriculture, Food and Environment

1:15-1:30 PM Ashley Hadley Soybean biological yield response to multiple seed treatments

Mentor: Chad Lee, Ph.D., Department of Plant and Soil Sciences, College of Agriculture, Food and Environment

1:30-1:45 PM Rachel Snyder The effect of thermal exposure on transgenerational plasticity in *Drosophila melanogaster*

Mentor: Nicholas Teets, Ph.D., Department of Entomology, College of Agriculture, Food and Environment

1:45-2:00 PM Tyler Jessup Sex differences in amyloid beta and APP in APPxPS1 wild-type mice

Mentor: Michael Murphy, Ph.D., Department Molecular and Cellular of Biochemistry, College of Medicine

2:00-2:15 PM Chase Eastham Defining domains of a recruitment protein in Tombusviridae essential for viral replication organelle formation

Mentor: Peter Nagy, Ph.D., Department of Plant Pathology, College of Agriculture, Food and Environment

2:15-2:30 PM Emilee Albright The effects of GIPC3 mutation on hair cell function and hearing loss

Mentor: Hou-Fu Guo, Ph.D., Department of Molecular and Cellular Biochemistry, College of Medicine

2:30-2:45 PM Syd Moss Comparison of immune response to vaccination: Old versus young horses

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