

STUDENT RESEARCH PRESENTATIONS
AGRICULTURAL BIOTECHNOLOGY PROGRAM (ABT 395/399)

Thursday, December 7, 2006
Cameron Williams Lecture Hall – Plant Science Building

1:00 PM Welcome and Introduction (*Dr. Jamie Mathews, Instructor, ABT 395/399*)

1:00 PM Alternative substrates and specificity of Rubisco LS-methyltransferase

Leslie Mulligan

Mentor: Dr. Robert Houtz, UK Department of Horticulture

1:15 PM Analysis of glucose-regulated localization of PDX-1 in pancreatic beta-cells

Sara Freibert

Mentor: Dr. Sabire Ozcan, UK Department of Molecular and Cellular Biochemistry

1:30 PM α -Helix residue propensities are not sufficient to predict unfolded state behavior of peptides with α -helical tendencies

Angie Firestone

Mentor: Dr. Trevor P. Creamer, UK Department of Molecular and Cellular Biochemistry

1:45 PM FRET analysis of polypeptide structure

Sara Manning

Mentor: Dr. Trevor P. Creamer, UK Department of Molecular and Cellular Biochemistry

2:00 PM Effect of the juvenile hormone analog, methoprene, on the gene expression in the tissues of the tobacco budworm, *Heliothis virescens* during metamorphosis.

Elizabeth Berlin

Mentor: Dr. Subba Reddy Palli, UK Department of Entomology

2:15 PM Surfactant Protein D Protects the Lung from Inflammation Induced by Endotoxin

Elizabeth Scoville

Mentor: Dr. Machiko Ikegami, University of Cincinnati College of Medicine, Department of Pediatrics

2:30 PM The fusion of luciferase and green fluorescent proteins in transgenic mouse models

Christina Davis

Mentor: Dr. Brett Spear, UK Department of Microbiology, Immunology, and Molecular Genetics

2:45 PM **BREAK**

3:00 PM Ecological study on endangered bats in Kentucky and West Virginia with a focus on summer roost sites and habitat

Colleen Spurlock

Mentor: Dr. Robert Houtz, UK Department of Horticulture

3:15 PM Estrogen and Helix 12 in the co-repression of Pit-1 and estrogen receptor α

Samantha Marcum

Mentor: Dr. Scott E. Diamond, UK Department of Physiology; ECU Department of Education

3:30 PM Evaluation and analysis of polyadenylation signals in the pollen transcriptome and seed storage protein genes

Patrick Thomas

Mentor: Dr. Arthur Hunt, UK Department of Plant and Soil Sciences

3:45 PM Estrogen: effects on neurons and protection against cell death

Deana Jasper

Mentor: Dr. Melinda Wilson, UK Department of Physiology

4:00 PM Regulation of protein kinases Pkh 1 and pkh 2 by protein kinase Pkc 1 and a new role for Pkh 1/2 in mRNA degradation in *Saccharomyces cerevisiae*

Marc Etensohn

Mentor: Dr. Robert C. Dickson, UK Department of Molecular and Cellular Biochemistry

4:15 PM The use of DNA shuffling to produce a PrP gene mutation library

William Sears

Mentor: Dr. Glenn Telling, UK Center On Aging

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4:30 PM Reception (Atrium of the Plant Sciences Building; hosted by *Dr. Bruce Webb, Director, Agricultural Biotechnology Program*)

4:45 PM Presentation of The Glenn Collins Undergraduate Presentation Awards