

COLLEGE OF AGRICULTURE, HEALTH, AND NATURAL RESOURCES  
GRADUATE STUDENT RESEARCH FORUM

Saturday, February 21, 2015  
Location: Laurel Hall

**ORAL AND POSTER  
PRESENTATION GUIDELINES**

**Critical dates**

December 19, 2014 - Due date for giving intent to present and preferred presentation type (oral or poster)

January 26, 2015 - Due date for submitting abstract and final title

**Submission of poster/oral presentation title**

- Intent to present and preferred presentation type, along with the name of presenter and major advisor must be submitted to corresponding graduate department representatives on or before **December 19, 2014** to hold your presentation position. (See list below for contact information)
- A total of 4 oral presentations (2 MS or first year PhD and 2 PhD) and 5 poster presentations (both MS and PhD) will be accepted from each department.
- Presentation slots will be filled based on “first come first served”
- We encourage all students interested in presenting research to submit their names to their department representatives. We will try to accommodate as many presentations as possible based on total number of titles received.
- Even if you do not present, please plan to attend to support your fellow graduate students.

## **Graduate student representatives:**

### Agricultural and Resource Economics:

Anwasha Chakrabarti ( [Anwasha.chakrabarti@uconn.edu](mailto:Anwasha.chakrabarti@uconn.edu) )

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Carnisha Gilder ( [Carnisha.gilder@uconn.edu](mailto:Carnisha.gilder@uconn.edu) )

### Animal Science:

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### Kinesiology

Hayley MacDonald ( [Hayley.macdonald@uconn.edu](mailto:Hayley.macdonald@uconn.edu) )

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### Natural Resources and the Environment:

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### Nutritional Sciences:

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### Plant Science and Landscape Architecture:

Jack Lamont ( [John.lamont@uconn.edu](mailto:John.lamont@uconn.edu) )

Julie Campbell ( [Julie.campbell@uconn.edu](mailto:Julie.campbell@uconn.edu) )

## **GUIDELINES**

### **Abstracts:**

- Abstracts may be no longer than 300 words.
- In general, abstracts may include a brief justification of research, objective, methods, results, and significance of your research. However, abstract style can be modified according to each discipline.
- Abstracts should be typed in 12 pt. Times New Roman font, single spaced with 1 inch margins.
- Abstract title should be typed in 12 pt. Times New Roman bold font, and presenting author name should be typed in 12 pt. Times New Roman font italics (please see the sample abstract).
- Proofread very carefully for formatting, spelling, and grammar to avoid errors before submission. The 300-word standard abstract will be published exactly as it has been submitted.
- Abstract should be emailed as an MS word document to department representatives on or before **January 26, 2015**.

### **Oral Presentation Guidelines:**

- Oral presentations should be structured for 12 minutes plus 3 minutes for questions.
- Power point slides must be sent to Lynn Grabowski ([lynn.grabowski@uconn.edu](mailto:lynn.grabowski@uconn.edu)) by **Friday, February 20, 2015**. If the file size is large, participants can use file UCONN drop box facility (<https://dropbox.uconn.edu/dropbox>).
- No individual computers will be used at the session. Bring your presentation with you on a thumb drive to load onto the computer provided prior to your presentation.

### **Poster Guidelines:**

- A 4 ft. (height) by 6 ft. (width) board as a display area (average poster size 36" by 48") and tacks will be provided.
- In general, poster may include a brief justification of research, objective, methods, results, and significance of your research. However, poster style can be modified according to each discipline.
- Poster must be displayed on the pre-assigned space before 9 am on **February 21, 2015**.
- To have your poster judged and be eligible for an award, you will be asked to give a 5 minute poster presentation with 5 minutes for questions, to the judges, at a specified time to be determined prior to the event.
- One poster winner will be selected from each department.

**If you have any questions, please contact your department representative.**

## **SAMPLE ABSTRACT**

### **Effects of 4-hydroxy-2-nonenal on mitochondria-mediated metmyoglobin reduction**

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To date, meat science research has assessed the effects of 4-hydroxy-2-nonenal (HNE; secondary lipid oxidation product) on color by examining adduction between HNE and myoglobin. However, HNE also has been shown to influence mitochondrial oxygen consumption in various non-meat systems. Although mitochondria have a major role in color stability through the regeneration of NADH and oxygen consumption, no research has assessed the effects of HNE on beef mitochondria-mediated metmyoglobin reduction.

The objectives were to assess the effects of 4-hydroxy-2-nonenal on beef mitochondrial oxygen consumption and metmyoglobin reduction in vitro at pH 5.6 and 25 °C.

Both mitochondria and myoglobin were isolated from fresh bovine hearts (n=5). Oxygen consumption was assessed using a Clark electrode after the addition of succinate (8 mM) to mitochondria (2 mg/ml) pre-incubated with HNE (0.20 mM). Control samples received succinate after mitochondria were pre-incubated with ethanol at a volume equivalent to that used for delivering HNE. For assessing mitochondria-mediated metmyoglobin reduction, isolated mitochondria (2 mg/ml) and myoglobin (0.15 mM) were reacted with either succinate (8 mM) and HNE (0.20 mM) or succinate without HNE for three hours. At specific time points, samples were removed, centrifuged, and the resulting supernatant was used to measure metmyoglobin reduction.

HNE decreased oxygen consumption compared with control samples without HNE ( $P < 0.05$ ). Furthermore, HNE-treated mitochondrial samples had decreased metmyoglobin reduction compared with control samples ( $P < 0.05$ ). Thus, HNE decreased the ability of mitochondria to consume oxygen and reduce metmyoglobin, both of which can alter postmortem meat color stability. In addition to adduct formation between HNE and myoglobin, secondary lipid oxidation products may influence color stability by interacting with mitochondria.