Alabama Research Experiences for Undergraduates (ALREU)

Project Title:
Evaluating the ability of low temperature plasma technology to inhibit foodborne pathogens on produce

Project Reference Code:
AAMU-JacksonDavis

Hosting Institution:
Alabama A&M University

Hosting Institution Location:
Huntsville, AL

Project Description:
Foodborne pathogens such as *Salmonella*, *Listeria monocytogenes* and *E. coli* O157:H7 on produce are a significant food safety concern. Because many products in this category are typically consumed raw, there is an urgent need to control foodborne pathogens. The objective of this project is to evaluate the ability of low temperature plasma to control the growth of foodborne pathogens on produce. Produce will be chosen and spot inoculated with a 5-strain mixture of *Salmonella enterica, Listeria monocytogenes* or *E. coli* O157:H7 and held overnight to allow for attachment of the pathogen. Samples will then be treated with low-temperature plasma. Un-treated samples will serve as the control. To evaluate survival of the pathogen after treatment, samples will be plated on appropriate microbiological media and incubated. Following incubation, survivors will be determined. For this research project, experience in food microbiology is desirable.

Disciplines:
Food microbiology

U.S. citizenship required to participate in this project.

Name(s) of Mentor(s) and contact information:
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The name and contact information of personnel at the hosting is provided for further assistance with questions regarding the hosting institution or the project.

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