CAFPA STUDENT RESEARCH PROGRAM

REQUEST FOR PROPOSALS - 2021

Sponsored by:

kikkoman
Kikkoman Biochemifa Company

Background and Objective:

The Capital Area Food Protection Association (CAFPA) is pleased to announce a collaboration with Kikkoman Biochemifa Company to foster a new student program aimed at delivering professional growth through practical research and development projects. The program aims to provide research and applications opportunities for full-time undergraduate/graduate students to conduct R&D projects in food safety and testing applications.

Kikkoman Biochemifa Company (https://biochemifa.kikkoman.co.jp/e/) will sponsor select research projects for bench-scale development and field-scale evaluation of novel ATP (adenosine triphosphate)-based cleaning and sanitation verification test procedures (Kikkoman Technology). CAFPA will administer the program including call for proposals, coordinating a selection committee, and research scholarship grants. All R&D related discussions after the program has started including sharing of results and outcomes will occur directly between the scholarship recipients and Kikkoman Biochemifa Company.

Research areas for consideration in this program should apply the Kikkoman Technology and may include:

- Performance testing of ATP tests on various foods and process settings. It is known that ATP tests respond differently based on type of food including various attributes such as fermentation, aging, presence of yeasts or mold, etc. A test project might measure the performance of ATP tests against different types of foods and/or processes/parameters.

- Comparative testing of different tests in the same settings (it is known that ATP tests vary in performance). Comparison studies such as, performance of ATP tests, differential performance of different luminometers and detector types (i.e., photodiode vs. photomultiplier technology), swab recovery and release parameters, and similar critical test parameters.

- Evaluation of ATP levels (RLU) versus measured bacterial load (CFU) in a food processing location, both pre- and post-cleaning. Such a project might include recommendation of benchmark ATP measurements to represent post-cleaning effectiveness in that food processing application and cleaning/re-cleaning procedures based on test results.

- Investigating persistence and/or degradation of ATP in food processing applications. ATP is known to degrade on food processing surfaces due to environmental factors such as temperature, pH, presence of microbes, and other factors. Measurement of the rate of ATP degradation (or its persistence) in various food processing settings.

Research Scholarships:

The one-year program is expected to begin May 2021. CAFPA will consider qualifying research proposals with an intention to award at least one but up to four grants at a level of $2,500.00 to $5,000.00 each. Kikkoman Biochemifa Company will provide or cover the cost of materials needed to conduct the approved research studies (may include but not limited to luminometers, chemical and reagents, lab and media supplies, food products, microorganism, etc.). Periodic progress reports and a final report outlining research results are expected to be shared directly with Kikkoman Biochemifa Company.

Criteria for Applicants

- Proposals will be considered from students enrolled full-time at the undergraduate or graduate level in a food science, microbiology, biology, or other program related to food microbiology, food safety, or food science at an accredited college or university at the time of the application deadline.
- The student should have a demonstrated interest in and commitment to food safety and quality.
- Have access to relevant bench-scale and/or field-scale laboratory facilities at which the testing will occur.
- Support from his/her professor/faculty member to serve as program and research advisor and avail laboratory equipment and facilities.
- Be a current or new CAFPA member.
- Commitment to present the findings of your research at a future CAFPA and/or IAFP meeting.

Interested students should submit a proposal to CAFPA by February 28, 2021 with the following:

1. **Statement of Interest** *(one page maximum)* explaining:
    a. Why you are interested in food safety and quality?
    b. Your career aspirations.
    c. Why you are interested in pursuing this research program?

2. **Summary of Research Project Proposal (***3 pages maximum***)**
    a. A detailed description of the proposed project (along with needed materials and supplies).
    b. Summary of the facilities available for your work on this program.
    c. Proposed timeline of activities.

3. **A letter of recommendation** from the faculty member who will serve as the student's research advisor providing a recommendation of the student, commitment to serve as the research advisor, and willingness to provide their laboratory for research.

Submitting an Application

Applications should be submitted on or prior to February 28th, 2021 in PDF format to Elizabeth.Reed@fda.hhs.gov. If you have questions about this scholarship or application requirement, please contact Elizabeth Reed at Elizabeth.Reed@fda.hhs.gov or Sanjay Gummalla at sgummalla@affi.com. Applicants will be notified of CAFPA's final decision no later than **March 31, 2021.**