

Opportunity Title: USDA-ARS Postdoctoral Fellowship in Chemical Ecology
Opportunity Reference Code: USDA-ARS-2022-0053

Organization U.S. Department of Agriculture (USDA)

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A complete application consists of:

- An application
- Transcript(s) – For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. All transcripts must be in English or include an official English translation. Click [here](#) for detailed information about acceptable transcripts.
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional recommendations

All documents must be in English or include an official English translation.

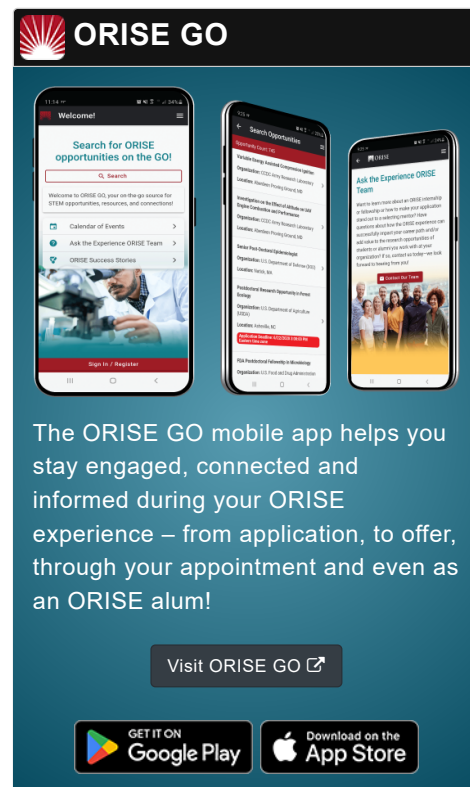
Application Deadline 3/31/2022 3:00:00 PM Eastern Time Zone

Description *Applications are reviewed on a rolling-basis and this posting could close before the deadline.

ARS Office/Lab and Location: A postdoctoral research opportunity is currently available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Tropical Crop and Commodity Protection Research Unit located in Hilo, Hawaii.

The Agricultural Research Service (ARS) is the U.S. Department of Agriculture's chief scientific in-house research agency with a mission to find solutions to agricultural problems that affect Americans every day from field to table. ARS will deliver cutting-edge, scientific tools and innovative solutions for American farmers, producers, industry, and communities to support the nourishment and well-being of all people; sustain our nation's agroecosystems and natural resources; and ensure the economic competitiveness and excellence of our agriculture. The vision the agency is to provide global leadership in agricultural discoveries through scientific excellence.

Research Project: The project will focus on the chemical ecology of Oriental fruit fly (OFF), *Bactrocera dorsalis*, one of the most destructive invasive pests of tropical crops worldwide. Current OFF quarantine programs focus on the surveillance and control of male flies. However, the male-oriented strategy is less effective for mitigating the impact caused by female populations, which could lead to fruit damage and ensuing trade issues. The primary goal of the project is to develop novel female attractants that can target different physiological status of female flies. The participant will join a multidisciplinary team of researchers and



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collaborate on (1) behavioral testing of volatiles emitted from microbes, host plants and protein food, (2) identification of key attractant volatiles using GC-EAD and GC-MS, and (3) field testing of developed lures and baits.

Learning Objectives: The participant will be encouraged to develop independent and collaborative research, publish research results, and promote technology transfer through conference attendance, presentations and Cooperative Research And Development Agreements with commercial companies.

Mentor(s): The mentors for this opportunity are Dong Cha (dong.cha@usda.gov) and Paul Kendra (paul.kendra@usda.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: Late Spring 2022. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for one year, but may be renewed upon recommendation of ARS and is contingent on the availability of funds.

Level of Participation: The appointment is full-time.

Participant Stipend: The participant will receive a monthly stipend commensurate with educational level and experience.

Citizenship Requirements: This opportunity is available to U.S. citizens, Lawful Permanent Residents (LPR), and foreign nationals. Non-U.S. citizen applicants should refer to the [Guidelines for Non-U.S. Citizens Details page](#) of the program website for information about the valid immigration statuses that are acceptable for program participation.

ORISE Information: This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and ARS. Participants do not become employees of USDA, ARS, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE.

Questions: Please visit our [Program Website](#). After reading, if you have additional questions about the application process please email USDA-ARS@ora.org and include the reference code for this opportunity.

Qualifications

The qualified candidate should have received a doctoral degree in one of the relevant fields, or be currently pursuing the degree with completion by June 1, 2022.

Preferred skills:

- Expertise in identification of volatile chemicals (protein, plant, microbes)
- Experience in chemical ecology

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- Experience in insect behavior and bioassays
- Strong interest in microbial ecology
- Strong interest in electrophysiology (GC-EAD, SSR, electroretinography)
- Experience in GC and GC/MS techniques
- Interest in product development or technology transfer
- Good interpersonal skills
- Excellent written and oral communication

**Eligibility
Requirements**

- **Degree:** Doctoral Degree.
- **Discipline(s):**
 - **Chemistry and Materials Sciences** (12 👁)
 - **Environmental and Marine Sciences** (8 👁)
 - **Life Health and Medical Sciences** (16 👁)