Opportunity Title: USDA-ARS Postdoctoral Fellowship in Insect Genetics and Molecular Biology
Opportunity Reference Code: USDA-ARS-PWA-2025-0071

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-PWA-2025-0071

How to Apply ***To submit your application, scroll to the bottom of this opportunity and click APPLY.***

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. 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.

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Application Deadline 9/12/2025 3:00:00 PM Eastern Time Zone

Description ***Applications are reviewed on a rolling-basis.**

ARS Office/Lab and Location: A research opportunity is currently available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), 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 of the agency is to provide global leadership in agricultural discoveries through scientific excellence.

The Tropical Pest Genetics and Molecular Biology research unit at the Pacific Basin Agriculture Research Center in Hilo, HI focuses on understanding the fundamental biology of tropical pests of Hawaii and building a foundation for improving current pest control.

https://www.ars.usda.gov/pacific-west-area/hilo-hi/daniel-k-inouye-us-pacific-basin-agricultural-research-center/tropical-pest-genetics-and-molecular-biology-research-unit/

Research Project: The research opportunity is available to a motivated

postdoctoral fellow interested in learning and using contemporary functional genomics approaches (CRISPR, RNAi, transgenics, etc.) to characterize the functions of genes involved in biological development, reproduction, sex determination, and/or olfaction/chemical sensing in tephritid pests of agriculture. The research opportunity will allow the postdoc to develop and/or improve biological control (genetic SIT, gene-drive, release of insects carrying dominant lethal systems) in tephritids by integrating or exploiting genes involved in fundamental biology. Furthermore, this research opportunity will allow the postdoc to develop and/or apply new and emerging genetic tools to tephritids.

Learning Objectives: In this opportunity, the participant will learn and receive training in functional genomics and gain experience with insect gene manipulation, insect transgenesis, insect husbandry and strain isolation, plasmid design and construction, and in developing and/or apply new biotechnology to insects. The participant will have the opportunity to take online courses to expand their scientific and/or computational experiences. Opportunities to collaborate with other scientists is also available and highly encouraged.

Mentor(s): The mentor for this opportunity is Chan Heu (chan.heu@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: Until filled with an anticipated start date of October 6, 2025**.** 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 current stipend is approximately $77,000/year but may be adjusted commensurate with experience.** In addition, health insurance premium will be provided. Funds can be made available to support relocation.

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. Foreign national candidates may have a mandatory in-person requirement depending on visa status.

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

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through ORISE.

Questions: Please visit our Program Website. After reading, if you have additional questions about the application process, please email ORISE.ARS.PacificWest@orau.org and include the reference code for this opportunity.

Qualifications

The qualified candidate should have received a doctoral degree in a relevant field (Biochemistry, Cellular and Molecular Biology, Entomology, Evolutionary Biology, Genetics, or similar), or be currently pursuing the degree with completion by Oct. 6, 2025. Degree must have been received within five years of the appointment start date.

Preferred skills:

- Candidates with a track record of publication in peer-reviewed journals, grant writing, and delivering oral presentations are highly desirable.

Point of Contact Janeen

Eligibility Requirements

- **Degree:** Doctoral Degree received within the last 60 months or anticipated to be received by 10/6/2025 12:00:00 PM.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (11 👁)
  - **Computer, Information, and Data Sciences** (9 👁)
  - **Earth and Geosciences** (2 👁)
  - **Engineering** (2 👁)
  - **Environmental and Marine Sciences** (6 👁)
  - **Life Health and Medical Sciences** (40 👁)
  - **Mathematics and Statistics** (1 👁)
  - **Physics** (2 👁)
  - **Social and Behavioral Sciences** (1 👁)
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).

Affirmation I affirm that:

I am a US Citizen, OR;
I am a non-US citizen currently living in the United States