Opportunity Title: USDA-ARS Postdoctoral Research: Honey Bee Breeding, Genetics, and Physiology Unit
Opportunity Reference Code: USDA-ARS-SEA-2024-0347

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-SEA-2024-0347

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 11/22/2024 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 Baton Rouge, Louisiana.

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.

Scientists at the USDA-ARS Honey Bee Breeding, Genetics & Physiology Laboratory in Baton Rouge, LA are addressing honey bee health issues by breeding honey bee stocks with improved resilience and resistance to pests, pathogens, and environmental toxins. Development of improved, healthy, and productive honey bee stocks will help mitigate the effects of disease and climate change, improving the food supply at local, national and global levels.

Research Project: The successful candidate will become a fellow in a collaborative effort between the USDA-ARS (Honey Bee Breeding,

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Genetics, and Physiology Unity) and University of Florida (Honey Bee Research and Extension Laboratory) funded by NIFA and entitled "No More Mummies: Novel and integrative treatment options for *Ascosphaera apis* in honey bees."

Chalkbrood is a common fungal disease that affects honey bee brood and causes serious economic damage (e.g., population loss, reduced honey production), particularly if colonies are already under stress. It is caused by a heterothallic fungus, *Ascosphaera apis*, which is distributed worldwide. There is no chemical treatment registered for controlling chalkbrood disease in North America, and as such prevention and control of chalkbrood must be achieved through best management practices that ensure strong colonies which are resistant or tolerant to infection. As part of a multi-pronged defense against chalkbrood, we plan to integrate work on fungicidal compounds along with genetic and behavioral based defenses of honey bees to form an integrated pest management strategy for beekeepers.

Learning Objectives: The Walsh Lab, in collaboration with Drs. Mike Simone-Finstrom (USDA-ARS) and Cameron Jack (University of Florida), is seeking a highly motivated postdoctoral research fellow with experience conducting honey bee research in both field and laboratory settings. The successful candidate will learn about leadership by assessing honey bees for disease resistance/tolerance in the lab and field, learning about developing management strategies for disease, and communicating results to both scientific and stakeholder communities. Specific questions should be directed to Liz at elizabeth.m.walsh@usda.gov.

Mentor(s): The mentor for this opportunity is Elizabeth Walsh (elizabeth.m.walsh@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: January 6, 2025. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for two years, 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

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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 ORISE.ARS.Southeast@orau.org and include the reference code for this opportunity.

Qualifications

The qualified candidate should be have received or be currently pursuing a doctoral degree in the one of the relevant fields (e.g. biology, entomology, immunology, animal behavior, or other related discipline). Degree must have been received within the past five years or be anticipated to be received by 1/10/2025.

Preferred skills:

- Demonstrated proficiency of general laboratory and field research practices
- Ability to perform well independently and with others as part of a team
- Excellent critical thinking, problem solving, and communication skills
- Prior experience with invertebrate pathogen research
- Prior experience with honey bees in a research setting
- Strong statistical skills
- Strong field and laboratory research background
- Experience publishing peer-reviewed articles
- Grant writing experience
- Experience sharing research with scientific and stakeholder audiences

Eligibility Requirements

- **Degree:** Doctoral Degree received within the last 60 months or anticipated to be received by 1/10/2025 12:00:00 AM.
- **Discipline(s):**
  - **Life Health and Medical Sciences** (7 👁)

Affirmation

I affirm that:

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