

**Opportunity Title:** USDA-ARS Fellowship in Characterizing Impacts and Resistance to Viral Infection in Honey Bees

**Opportunity Reference Code:** USDA-ARS-SE-2024-0092

**Organization** U.S. Department of Agriculture (USDA)

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**How to Apply** *Connect with ORISE...on the GO!* Download the new ORISE GO mobile app in the [Apple App Store](#) or [Google Play Store](#) to help you stay engaged, connected, and informed during your ORISE experience and beyond!

A complete application consists of:

- An application
- Transcripts – [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.

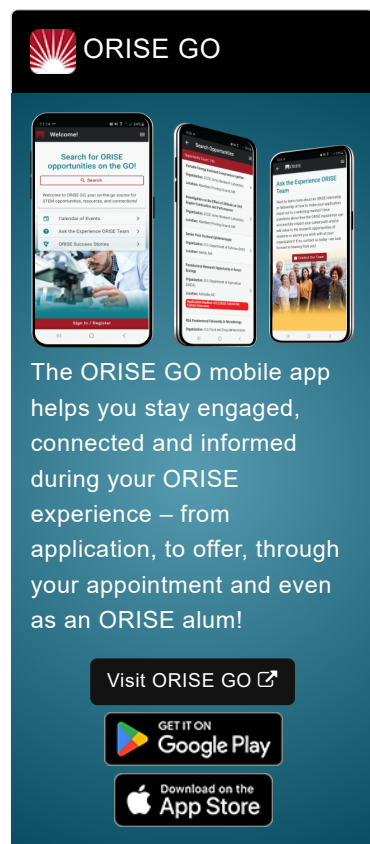
**Application Deadline** 4/26/2024 11:59:00 PM Eastern Time Zone

**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) at the Honey Bee Breeding, Genetics, and Physiology Research Laboratory located in Baton Rouge, LA. For more information see [the facility website](#).

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.

**Research Project:** Research in this group focuses on individual and social mechanisms of disease resistance in honey bees, including resin/propolis use, hygienic behavior and genetic diversity. Current research aims to add to this line of research by more fully understanding how these traits work in concert in order to promote them within the beekeeping industry and identify components of viral resistance in honey bees. Overall the goal is to mitigate effects of the threats facing honey bees and the beekeeping industry through increased knowledge, development of novel treatments, and breeding better bees. Given that there are no current treatments available for beekeepers to help reduce viruses in honey bee colonies, gaining a greater understanding of how bees respond to infection and supporting natural resistance mechanisms is key. Specifically, this opportunity will allow the participant to collaborate on exploratory research related to the influence of viral infection on honey bee behavior and



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perception and assessments of viral resistance in honey bees.

The participant will collaborate with lead researchers to learn and develop experimental designs, participate in research related to behavioral assays and viral infection studies, collect and analyze behavioral and molecular based data, and collaborate on interpretation and communication of results. This will include learning advanced molecular techniques, developing and learning novel behavioral assays, microinjections of honey bee pupae and adults, lab rearing of honey bees through different stages of development and beekeeping husbandry from and with a team of highly experienced researchers and technicians.

**Learning Objectives:** The participant will engage with beekeeping and public stakeholders to develop communication skills, have the opportunity to attend scientific and stakeholder conferences, able to attend virtual and in person statistical workshops and have access to the various trainings available within the USDA. Being part of the USDA-ARS Baton Rouge Bee Lab will give the participant access to not just ARS resources, but a world-renowned team of honey bee research experts and their networks.

**Mentor(s):** The mentor for this opportunity is Michael Simone-Finstrom ([michael.simonefinstrom@usda.gov](mailto:michael.simonefinstrom@usda.gov)). If you have questions about the nature of the research, please contact the mentor(s).

**Anticipated Appointment Start Date:** March 22, 2024. Start date is flexible and will depend on a variety of factors.

**Appointment Length:** The appointment will initially be for 6 months, 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 only.

**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 [ORISE.ARS.Southeast@orau.org](mailto:ORISE.ARS.Southeast@orau.org) and include the reference code for this opportunity.

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**Qualifications** The qualified candidate should have received a master's degree in one of the relevant fields. Degree must have been received within the past four years.

Depending on the research project objectives, the selected candidate may need to operate a government owned vehicle (GOV) and will be required to show proof of a valid U.S. State Driver's License and provide proof of an active U.S. auto insurance policy.

**Preferred skills:**

- Social insect experience, preferably comfort with honey bees
- Introductory molecular laboratory skills (e.g. pipetting)
- Familiarity with principles of animal behavior studies

- Eligibility Requirements**
- **Citizenship:** U.S. Citizen Only
  - **Degree:** Master's Degree received within the last 48 month(s).
  - **Discipline(s):**
    - **Life Health and Medical Sciences** ([4](#) )