Opportunity Title: USDA-ARS Postdoctoral Fellow in Honey Bee Health and Biotechnology
Opportunity Reference Code: USDA-ARS-HQ-2026-0014

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-HQ-2026-0014

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.

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!"

Application Deadline 3/27/2026 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 Davis, California.

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: The Pollinator Health Research Unit is seeking a highly motivated postdoctoral fellow to apply biotechnological approaches to improve the health and resilience of managed honey bees. The successful candidate will contribute to research projects focused on the development of novel therapeutics and the discovery of bioactive compounds that mitigate major stressors affecting honey bees, including parasites and pathogens.

Research activities will involve the application of molecular and cellular

biology, biotechnology, and chemical biology to honey bee health challenges. Projects include therapeutic development and mechanistic studies to understand host–pathogen interactions. The fellowship will include laboratory-based research using modern molecular and biochemical techniques. Some field research may be required and will involve handling managed honey bee colonies.

The postdoctoral fellow will perform both independently and collaboratively within a multidisciplinary research team, contribute to experimental design and data analysis, publish findings in peer-reviewed journals, and participate in the communication of results to scientific and stakeholder audiences.

Learning Objectives: This fellowship provides opportunities to develop an independent research profile while contributing to applied solutions for improving pollinator health. Through this fellowship, the successful applicant will gain hands-on experience and develop expertise in both laboratory and applied beekeeping research. The participant will have the opportunity to learn and refine skills in the following areas:

- **Field and Laboratory Study Setup and Maintenance:** The fellow will learn how to design, set up, and maintain field and laboratory experiments, gaining practical experience in managing research projects.
- **Honey Bee Sample Collection and Analysis:** The participant will be trained in the collection, processing, and analysis of honey bee samples using microbiological, molecular biological, and chemical methods. This includes characterizing and quantification of pathogens and beneficial microbes, which are critical components of honey bee health research.
- **Preparation of Laboratory Materials:** The fellow will learn to prepare test solutions, culture media, and reagents, ensuring proper laboratory protocols and procedures are followed.
- **Safe Handling of Laboratory Materials:** Training will include proper labeling, handling, storage, use, and disposal of solutions, biohazard and hazardous waste, and microbiological cultures, emphasizing laboratory safety and compliance.
- **Data Documentation and Record-Keeping:** The participant will develop skills in maintaining accurate records using a laboratory notebook, learning best practices for data documentation and management.
- **Summarizing and Interpreting Research Results:** The fellow will gain experience in analyzing and interpreting research findings, contributing to scientific understanding and advancing their ability to communicate results effectively.

Through these activities, the fellow will expand their knowledge and skill set in honey bee biology, biotechnology, microbiology, molecular biology, and data collection and analysis. This comprehensive training will prepare them for future research opportunities and careers in honey bee research and agricultural sciences.

Mentor(s): The mentor for this opportunity is Vincent Ricigliano (vincent.ricigliano@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: Preferably March 1, 2026. Start date is flexible and will depend on a variety of factors.

zintellect
climb higher

Opportunity Title: USDA-ARS Postdoctoral Fellow in Honey Bee Health and Biotechnology
Opportunity Reference Code: USDA-ARS-HQ-2026-0014

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

Level of Participation: The appointment is full time.

Participant Stipend: The participant will receive a monthly stipend commensurate with educational level and experience. The anticipated stipend ranges from $82,000-$99,300 annually.

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.HQPostdoc@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should have received or be currently pursuing a doctoral degree in one of the relevant fields.

Preferred skills:

Experience in at least one of the following areas: biotechnology, molecular biology, microbiology, apiculture, biochemistry

Stipend $82,000.00 – $99,300.00 Yearly

Point of Contact Janeen

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12 👁)
  - **Engineering** (3 👁)
  - **Life Health and Medical Sciences** (20 👁)