Opportunity Title: USDA-APHIS Postdoctoral Fellowship in Antimicrobial Resistance
Opportunity Reference Code: USDA-APHIS-2022-0375

Organization	U.S. Department of Agriculture (USDA)
Reference Code	USDA-APHIS-2022-0375
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
- 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.

If you have questions, send an email to USDA-APHIS@orau.org. Please include the reference code for this opportunity in your email.

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Application Deadline	3/31/2023 3:00:00 PM Eastern Time Zone
Description	***Applications will be reviewed on a rolling-basis.***

APHIS Office/Lab and Location: A research opportunity is currently available with the U.S. Department of Agriculture (USDA), Animal Plant Health Inspection Service (APHIS), at the National Veterinary Services Laboratories (NVSL) located in Ames, Iowa.

Research Project: This research opportunity provides support for the National Animal Health Laboratory Network (NAHLN) antimicrobial resistance pilot project by analyzing and reporting antibiotic susceptibility and whole genome sequencing data submitted to NAHLN from participating laboratories and developing both internal and external communication plans to disseminate findings to a wide range of technical and non-technical audiences.

Learning Objectives: Under the guidance of a mentor, the participant will be involved in the following research activities: synthesize data collected through the pilot project and utilize publicly available transcriptomic, metabolomic and genomic sequence databases to predict and characterize antimicrobial resistance genes and pathogenic virulence determinants; help develop novel bioinformatic techniques to investigate regulatory, co-expression, metabolic, and signaling networks involved in antimicrobial resistance; and conduct limited research on molecular and microbiological assays as needed, such as quantitative PCR, DNA extraction and sequencing library preparations, and conducting antimicrobial sensitivity test methods.

Mentor(s): The mentor for this opportunity is Beth Harris

(beth.n.harris@usda.gov). If you have questions about the nature of the research please contact the mentor.

Anticipated Appointment Start Date: 2022/2023. 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 for up to four years upon recommendation of APHIS and is contingent on the availability of funds.

Level of Participation: The appointment is full-time.

Participant Stipend: The participant(s) will receive a monthly stipend commensurate with educational level and experience. **The annual stipend rate for this opportunity will be determined upon selection and will range between $76,000 and $91,000. Relocation expenses are not available. A travel allowance of $2,500 will be available to go to relevant trainings and conferences to present research findings. Candidates will be eligible to receive a health insurance stipend supplement.**

Citizenship Requirements: This opportunity is available to U.S. citizens and Lawful Permanent Residents (LPR).

Background Investigation Requirements: Adjudication of a Special Agency Check (SAC) is required before the selected candidate can start. Paperwork for this clearance will be sent to the selected candidate after acceptance of the official offer from ORAU.

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 APHIS. Participants do not become employees of USDA, APHIS, 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-APHIS@orau.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.

Preferred skills:

- Advanced knowledge in bioinformatics, genetics, and/or molecular biology
- Ability to conduct basic in silico analyses of bacterial genomic sequence data associated with antimicrobial resistance
- Experience using command-line programs to analyze, utilize, or annotate genome/transcriptome sequences
- Familiarity with using Linux-based servers and software for conducting gene prediction and gene expression analyses

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- Ability to develop skills in computationally identifying important genes or gene networks in complex data set
- Working knowledge of basic bacterial microbiology for analyzing and integration with computational, transcriptional and genome data related to antimicrobial resistance
- Familiarity with pathogenic microorganisms

Publications in peer-reviewed journals and invitation to speaking engagements are considered evidence of the preferred skills mentioned above.

Eligibility Requirements	**Citizenship:** LPR or U.S. Citizen **Degree:** Doctoral Degree. **Discipline(s):** **Communications and Graphics Design** (1 👁) **Computer, Information, and Data Sciences** (3 👁) **Life Health and Medical Sciences** (10 👁) **Mathematics and Statistics** (1 👁)