

Opportunity Title: USDA-APHIS Microbiologist/Protein Scientist Fellowship

Opportunity Reference Code: USDA-APHIS-2022-0199

Organization

U.S. Department of Agriculture (USDA)

Reference Code

USDA-APHIS-2022-0199

How to Apply

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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. At least one recommendation must be received in order for the mentor to view your application.

All documents must be in English or include an official English translation.

Description

***Applications are 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 Foreign Animal Disease Diagnostics Laboratory (FADDL) located in Orient Point, New York.

Research Project: The USDA APHIS FADDL at the Plum Island Animal Disease Center, New York provides diagnostic capability to assist the States and the USDA in diagnosing and responding to Foreign Animal Disease (FAD) threats. Specifically, the FADDL provides diagnostics for vesicular and swine diseases. Given the recent increase in risk associated with the expanded outbreaks of African Swine Fever virus (ASFV), there is a need for tools that can rapidly determine the presence of the virus for further analysis.

The selected Fellow will collaborate with microbiologists, veterinarians, statisticians, and biotechnicians to support the diagnostic mission. They will have the opportunity to learn about ASFV and other transboundary animal diseases and their impact on trade, surveillance procedures and methods, diagnostic testing algorithms for testing in series, sample handling and management, as well as how automated platforms are used in laboratories.

Learning Objectives: Under the guidance of a mentor, learning opportunities include, but are not limited to:

- Learn and perform sample preparation for MALDI-TOF analysis for generating data to detect ASFV and possibly other foreign animal disease agents.
- Maintain and operate the MALDI-TOF instrument.
- Conduct diagnostic assay performance characteristic evaluation in support of the validation of ASFV and other foreign animal disease diagnostic assays.
- Update and create standard operating procedures, and other documentation in accordance with ISO-17025 procedure.
- Assist in routine laboratory duties to ensure quality programs and maintenance programs are supported.
- Analyze data, summarize findings on forms, reports, and via presentations.

Mentor(s): The mentor for this opportunity is Roger W. Barrette (roger.w.barrette@usda.gov). If you have questions about the nature of the research please contact the mentor.

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

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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 these positions will be determined upon selection and will range between \$50,000 and \$70,000 plus a health insurance allowance.

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 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.

This is an equal opportunity program open to all qualified individuals without regard to race, color, age, sex, religion, national origin, mental or physical disability, genetic information, sexual orientation, or covered veteran's status.

Questions: Please visit our [Program Website](#). After reading, if you have additional questions about the application process please email USDA-APHIS@ornl.gov and include the reference code for this opportunity.

Qualifications

The qualified candidate should have received a master's degree in one of the relevant fields (e.g. Proteomics, Protein Science, Immunology, Biochemistry, Animal Sciences, General Biology, Cellular and Molecular Biology, Comparative Medicine and Laboratory Animal Medicine, Infectious Diseases and Zoonoses, Microbiology, Virology).

Research is performed in a BSL-2/3 laboratory. Interacting with unknown pathogenic agents mandates the use of biocontainment hoods and wearing personal protective gear, which is strenuous on the individual.

This appointment requires daily travel to and from Orient Point, NY, or Old Saybrook, CT, and Plum Island aboard government-provided marine vessels.

Preferred skills:

- Knowledge of general laboratory practices including aseptic technique and the use of common laboratory equipment (centrifuge, micropipettes, biosafety cabinets, microscope, etc.).
- Able to demonstrate a level of familiarity with MALDI-TOF Spectrometry.
- Ability to help to identify protocols for generating high-quality samples for downstream MALDI-TOF analysis.
- Proficiency in technical writing, oral communication, interpersonal and organization skills, as well as critical thinking skills to analyze and interpret data.
- Demonstrated flexibility and self-motivation to complete assigned tasks.
- Eagerness to learn from peers and to work in a team environment.
- Proficiency in using basic word processing and data management software.
- A background working with cell culture based samples.
- BSL-3 laboratory experience.
- Experience in working with select agents.
- Experience with analysis of MALDI-TOF spectra.

Eligibility Requirements

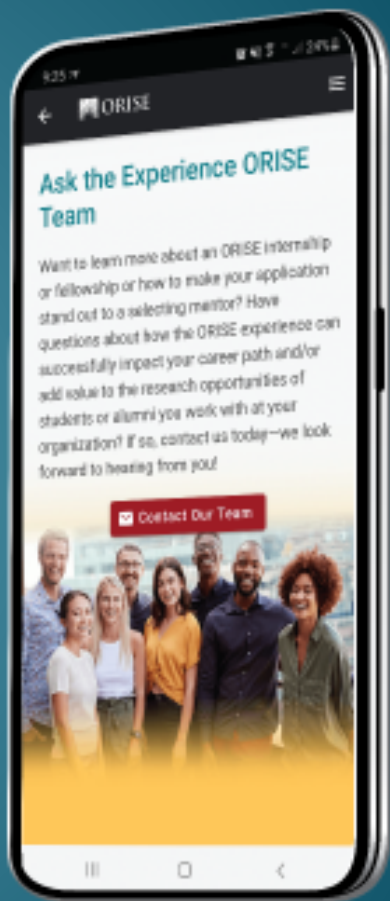
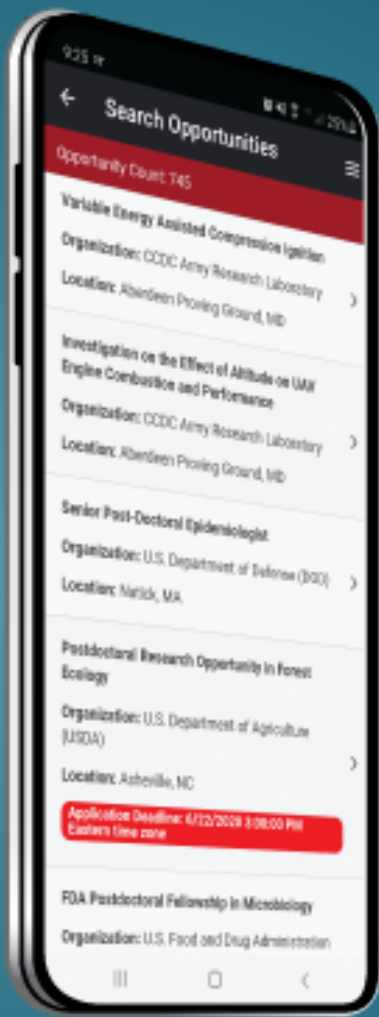
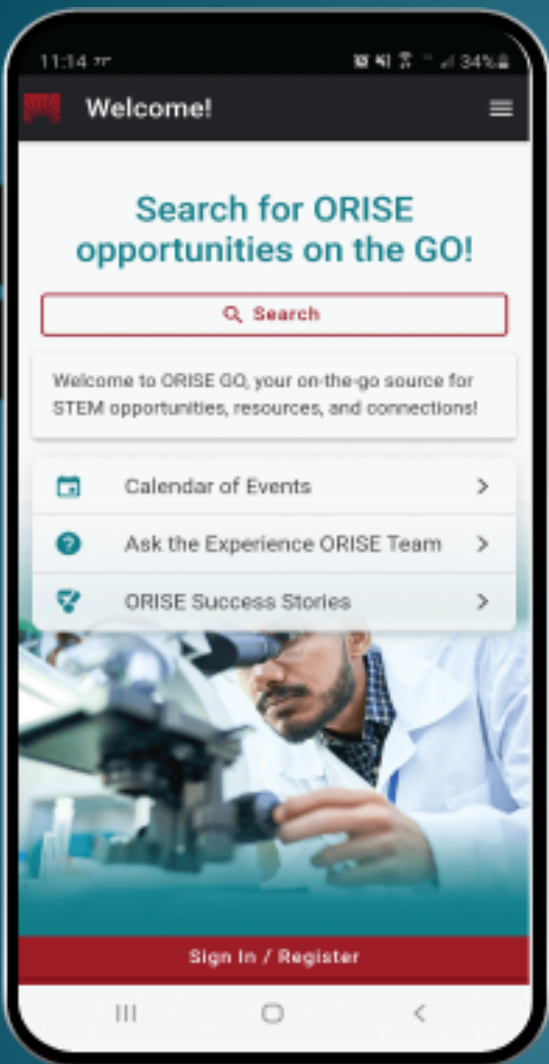
- **Citizenship:** U.S. Citizen Only
- **Degree:** Master's Degree.
- **Discipline(s):**
 - **Chemistry and Materials Sciences** ([12](#) )
 - **Earth and Geosciences** ([21](#) )
 - **Environmental and Marine Sciences** ([14](#) )

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◦ **Life Health and Medical Sciences** ([48](#) )



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