

Opportunity Title: USDA-ARS Internship for Monitoring Irrigation Waters

Opportunity Reference Code: USDA-ARS-NE-2023-0167

Organization U.S. Department of Agriculture (USDA)

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<u>Store</u> or <u>Google Play Store</u> 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 7/7/2023 4:32:44 PM Eastern Time Zone

**Description** \*Applications are reviewed on a rolling-basis.

<u>ARS Office/Lab and Location</u>: A research opportunity is available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), within the Beltsville Agricultural Research Center located in Beltsville, Maryland.

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: Your research will involve 1) identification of spatial and temporal dynamics of *E. coli* and phytoplankton in irrigation water sources 2) improvement of monitoring designs by determining the most effective sampling locations, and 3) to identify environmental water parameters which will expedite the assessment of microbial water quality. Under the guidance of a mentor, you will gain significant insight into research lab operations and data collection within environmental research applications and system troubleshooting. Additionally, you will gain experience in collaboration and coordination of multiple research projects, as well as allocation and execution of their associated resources and operations.

You will receive hands-on experience operating state-of-the-art sensors and water sampling equipment, as well as supplementary exposure to fluorimetry and spectrometry. Daily activities will consist of the set-up of equipment, maintenance of participant folders, interaction with research participants, executing data collection, organizing and analyzing data, report development, and other associated literature reviews.



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Supplementary experience will be associated with protocol, standard operating procedure, and proposal development, as well as interaction with institutional requirements and procedures.

Finally, you will learn about multidisciplinary applied research, while supporting research in areas that are practicable and pertinent to the United States and global agriculture. You may also have the opportunity to collaborate with various subject matter experts, attend conferences/scientific meetings, and/or receive supplementary training.

Learning Objectives: This fellowship provides the opportunity to utilize and develop your skills and engage with experts in innovative ideas to move the proposed research forward.

Mentor(s): The mentors(s) for this opportunity is Yakov

Pachepsky (yakov.pachepsky@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: Spring/Summer 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 upon recommendation of ARS and is contingent on the availability of funds.

**Level of Participation**: The appointment will be full-time or part-time based on the candidate's availability.

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

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

Preferred skills:

Knowledge in the environmental sustainability field.

## Requirements

- Eligibility Citizenship: U.S. Citizen Only • Degree: Bachelor's Degree.
  - Discipline(s):
    - Earth and Geosciences (1.

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- Environmental and Marine Sciences (5\_●)

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