

Opportunity Title: USDA-ARS Postdoctoral Fellowship in Molecular Microbiology

Opportunity Reference Code: USDA-ARS-2022-0058

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-2022-0058

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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.

Description *Applications are reviewed on a rolling-basis, and this posting will remain open until filled.

ARS Office/Lab and Location: A postdoctoral research opportunity is available with the Fish Health Unit at the National Center for Cool and Cold Water Aquaculture (NCCCWA), located in Leetown, West Virginia. The mission of the NCCCWA is to enhance the nation's aquaculture production by developing improved germplasm and technologies that increase farm efficiency, product quality, and environmental sustainability. Research focuses primarily on rainbow trout and encompasses genetics, genomics, physiology, aquatic animal health, and aquaculture engineering.

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 the agency is to provide global leadership in agricultural discoveries through scientific excellence.

Research Project: The selected participant will conduct microbiological research supporting the development of novel strategies that improve the health of farmed fish. This will include evaluating the utility of bacteriophage for precision biocontrol of pathogenic or nuisance bacteria in aquaculture systems, characterization of emerging pathogens of farmed fish, and the development and evaluation of vaccines.

Learning Objectives: The participant will gain useful experience designing and conducting experiments in collaboration with a team of microbiologists, immunologists, and veterinarians. The participant will be trained in an array of methodologies and technologies to fulfil the objectives of the project including microbiology, fish disease modeling, microbial genomics, metagenomics, biochemistry, microscopy, and molecular biology.

Mentor(s): The mentor for this opportunity is Timothy Welch (tim_welch@usda.gov). If you have questions about the nature of the research please contact the mentor(s).



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Anticipated Appointment Start Date: As soon as a qualified candidate is identified. 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 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.Northeast@ornl.gov and include the reference code for this opportunity.

Qualifications The qualified candidate should have received a doctoral degree in one of the relevant fields or are currently pursuing the degree and will reach completion by the start date of the appointment. Degree must have been received within five years of the appointment start date.

Knowledge, skills, and experience in one or more of the following areas is preferred: fish health and disease modeling, bacteriology, molecular biology, immunological assays, genomics, and metagenomics.

- Eligibility Requirements**
- **Citizenship:** U.S. Citizen Only
 - **Degree:** Doctoral Degree received within the last 60 months or currently pursuing.
 - **Discipline(s):**
 - **Chemistry and Materials Sciences** ([1](#) )
 - **Computer, Information, and Data Sciences** ([1](#) )
 - **Engineering** ([27](#) )
 - **Environmental and Marine Sciences** ([9](#) )
 - **Life Health and Medical Sciences** ([20](#) )
 - **Mathematics and Statistics** ([1](#) )
 - **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).