Opportunity Title: USDA-ARS Postdoctoral Fellowship in Fish/Shellfish Functional Genomics

Opportunity Reference Code: USDA-ARS-SEA-2025-0212

Organization	U.S. Department of Agriculture (USDA)
Reference Code	USDA-ARS-SEA-2025-0212
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.

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Application Deadline	2/13/2026 8:43:55 AM Eastern Time Zone
Description	***Applications are reviewed on a rolling-basis.***

ARS Office/Lab and Location: A postdoctoral research opportunity is currently available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Aquatic Animal Health Research Unit (AAHRU) located in Auburn, Alabama.

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 candidate will utilize both laboratory and computational approaches for fish/shellfish-pathogen interaction dynamics and genomics research at the Aquatic Animal Health Research Unit (AAHRU). Research objectives of the AAHRU include the development of rapid detection and diagnostics tests, novel therapeutants, and improved diet formulations that will enhance resistance to infectious bacteria, viruses, and parasites of warm water fish and shellfish. Researchers at AAHRU apply molecular, cellular, and computational approaches to determine
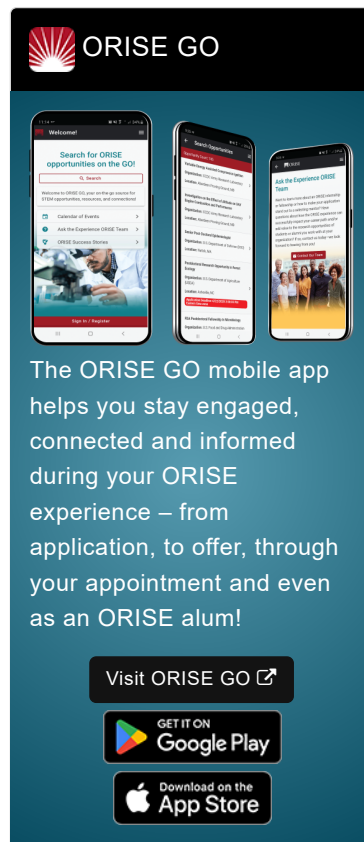
pathogen and host factors that influence virulence and/or disease resistance. Research projects will focus on the characterization of genetic variation associated with disease phenotype, validating candidate loci responsible for quantitative and qualitative traits, and/or determining function of genes and proteins as regulators of physiological or immunological traits.

Learning Objectives: Under the guidance of the mentor, the candidate will gain experience in and learn to utilize a functional genomics approach to examine host-pathogen interactions in several aquaculture species. The applicant will learn to integrate laboratory techniques with bioinformatics approaches, such as gene expression profiling, single-cell transcriptions, epigenomics, quantitative genomics, microbiome, and/or interactome analyses, to improve our understanding of relationships between genes, protein function, and disease phenotypes in warm water aquaculture species. The fellow will learn to utilize genome-scale datasets from host-pathogen interaction studies along with high-performance computing resources to answer scientific questions.

Mentor(s): The mentor for this opportunity is Jason Abernathy (jason.abernathy@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: March 2026. 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. **The anticipated stipend range is $5,930 - $6,516 monthly.**

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

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Qualifications	The qualified candidate should be currently pursuing or have received a doctoral degree in the one of the relevant fields (e.g. Bioinformatics, Computational Biology, Cell/Molecular Biology, Genetics, Genomics). Degree must have been received within the past five years, or received by July 31, 2026.

Candidates with proficiency in analyzing and interpreting genome-scale datasets are highly desired.

Preferred skills:

- Computational focus with field and laboratory experience
- Experience in Linux and computational languages including R, and Perl or Python
- Experience in AI/ML modeling
- Knowledge of genetics, next-generation sequencing, genome assembly and annotation
- Strong oral and written communication skills
- Evidence of research productivity through a strong publication record

Stipend $5,930.00 – $6,516.00 Monthly

Point of Contact Janeen

Eligibility Requirements
- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree received within the last 60 months or anticipated to be received by 7/31/2026 11:59:00 PM.
- **Discipline(s):**
  - **Computer, Information, and Data Sciences** (3 👁)
  - **Environmental and Marine Sciences** (4 👁)
  - **Life Health and Medical Sciences** (9 👁)