

Opportunity Title: USDA-ARS Shellfish Genetics, Genomics, and Computational Biology Fellowship
Opportunity Reference Code: USDA-ARS-NEA-2025-0242

Organization U.S. Department of Agriculture (USDA)

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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 2/27/2026 3:00:00 PM Eastern Time Zone

Description *Applications are reviewed on a rolling-basis.

ARS Office/Lab and Location: A research opportunity is currently available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), located in Kingston, RI.

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: Eastern oyster farming is the most rapidly expanding aquaculture sector in the U.S. The National Cold Water Marine Aquaculture Center Shellfish Genetics Laboratory supports the industry by conducting research that facilitates efficient genetic improvement for traits of commercial importance in the Northeast region. This opportunity will provide the chosen fellow with experience in applying experimental, molecular, and genomic approaches to better understand how and when changes in gene expression can affect oyster phenotypes targeted for improvement. The fellow will also gain experience using advanced computational methods to develop tools that can accurately predict desirable phenotypes. With the mentor's guidance, the participant will design and conduct experiments in the laboratory and



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the field and use data to test and validate predictive models. Interaction with stakeholders and research presentations at regional and national conferences will be supported.

Learning Objectives: Under the guidance of a mentor, specific learning objectives include:

- Conducting independent research aimed at developing methods and tools that will facilitate precision breeding and genetic improvement
- Identifying and optimizing appropriate molecular, genomic, and computational techniques to better characterize and predict traits targeted for selection
- Collaborating effectively with a multidisciplinary team
- Effectively communicating scientific research

Mentor(s): The mentor for this opportunity is Dina Proestou (dina.proestou@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: January 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 \$6,000 - 7,000 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.Northeast@orau.org and include the reference code for this opportunity.

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

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Preferred skills:




- Background in molecular biology with interest in expanding skill set in gene expression analysis (RNAseq, differential gene expression analysis, enrichment analysis, RNA extraction, cDNA synthesis, multiplex qPCR, etc.).
- Experience in bioinformatic analysis and willingness to learn and develop new analysis pipelines.
- Affinity for marine invertebrate biology and genetics.
- Strong oral and written communication skills.

Stipend \$6,000.00 – \$7,000.00 Monthly

Point of Contact [Janeen](#)

Eligibility • **Citizenship:** U.S. Citizen Only

Requirements • **Degree:** Master's Degree or Doctoral Degree.

- **Discipline(s):**
 - **Computer, Information, and Data Sciences** ([3](#) )
 - **Environmental and Marine Sciences** ([5](#) )
 - **Life Health and Medical Sciences** ([11](#) )