Opportunity Title: USDA-ARS Postdoctoral Fellowship in Cotton Fiber Bioscience & Utilization - New Orleans
Opportunity Reference Code: USDA-ARS-SEA-2026-0242

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-SEA-2026-0242

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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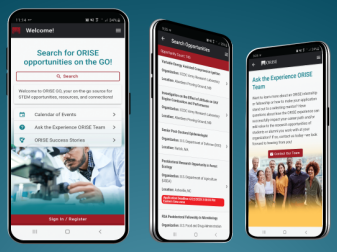
Application Deadline 1/29/2027 3:00:00 PM Eastern Time Zone

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), Southern Regional Research Center located in New Orleans, Louisiana.

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: Under the guidance of a mentor, you will have the opportunity to be involved in the following projects: 1) exploration to develop novel genomic tools and approaches to enhance the development of new cotton genotypes with improved fiber properties such as fire resistance. Activities may include using bioinformatics and statistical tools to understand cotton fiber biological processes by analyzing DNA/RNA sequences and phenotypic data from numerous informative cotton populations, identifying useful genetic markers, and ultimately causative

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genetic variants that can be used in selective breeding, and 2) research focused on creating novel utility of cotton fibers/fabrics through chemical modification aimed to improve anti-microbial ability of fibers through application of nanotechnologies.

Learning Objectives: Through this opportunity, you will develop an understanding of cotton fiber development such as elongation and maturation. In addition, you will learn how to use cutting edge bioinformatic techniques to identify genetic markers associated with fiber quantitative trait loci (QTL), and to reveal genes controlling fiber development processes. Learning opportunities will include QTL identification, application of novel bioinformatic software and statistical tools, transcriptome analysis, as well as field and greenhouse experiments. To accomplish this, you will collaborate with a research team that includes geneticists, molecular biologists, plant physiologists and computational biologists. You will have opportunities to increase your communication skills through presentations of research findings to stakeholders and academic conferences.

Mentor(s): The mentor for this opportunity is David Fang (david.fang@usda.gov), Research Leader and Supervisory Research Geneticist. If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: As soon as possible, 2026/2027. 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 $70,000 - $74,000 annually.**

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.

Qualifications The qualified candidate should be currently pursuing or have received a

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doctoral degree in the one of the relevant fields. Degree must have been received within the past five years, or anticipated to be received by start of appointment.

Preferred skills:

- Experience in analyzing DNA/RNA sequences using bioinformatic tools.
- Experience in conducting research in the fields of molecular biology and genomics.
- An understanding of how genetic and environmental factors influence plant growth and development.
- Ability to recommend and apply appropriate statistical analyses to various types of data.
- Proficiency with R and Python programming languages, Linux shell scripting, and Conda environments.
- Experience in understanding and application of nanotechnologies.
- Knowledge and experience of chemical modification of natural fibers (cotton, hemp, etc.)

Stipend $70,000.00 – $74,000.00 Yearly

Point of Contact Janeen

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** (12 👁)
  - **Computer, Information, and Data Sciences** (17 👁)
  - **Engineering** (29 👁)
  - **Environmental and Marine Sciences** (14 👁)
  - **Life Health and Medical Sciences** (51 👁)
  - **Mathematics and Statistics** (11 👁)
  - **Physics** (16 👁)
  - **Science & Engineering-related** (1 👁)
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).