Opportunity Title: USFS Conservation Genomics Internship
Opportunity Reference Code: USDA-USFS-2022-0388

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-USFS-2022-0388

How to Apply

Connect with ORISE...on the GO! Download the new ORISE GO mobile app in the Apple App Store or Google Play Store to help you stay engaged, connected, and informed during your ORISE experience and beyond!

A complete application package 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. Selected candidate must provide proof of completion of the degree before the appointment can start. Click **Here** for detailed information about acceptable transcripts.
- A current resume/CV
- Two educational or professional recommendations. At least one recommendation must be submitted in order for the mentor to view your application.

All documents must be in English or include an official English translation.

Application Deadline 1/2/2023 3:00:00 PM Eastern Time Zone

Description

Applications will be reviewed on a rolling-basis.

USFS Office/Lab and Location: A research opportunity is available with US Forest Service (USFS), Rocky Mountain Research Station located on the University of Montana campus in Missoula, Montana.

At the heart of the U.S. Forest Service's mission is their purpose. Everything they do is intended to help sustain forests and grasslands for present and future generations. Why? Because their stewardship work supports nature in sustaining life. This is the purpose that drives the agency's mission and motivates their work across the agency. It's been there from the agency's very beginning, and it still drives them. To advance the mission and serve their purpose, the U.S. Forest Service balances the short and long-term needs of people and nature by: working in collaboration with communities and our partners; providing access to resources and experiences that promote economic, ecological, and social vitality; connecting people to the land and one another; and delivering world-class science, technology and land management.

The National Genomics Center for Wildlife and Fish Conservation is a state-of-the art facility for advanced research providing expertise in DNA sequencing and environmental and forensic DNA sampling. The Center is designed for cross-agency partnerships to provide cost-effective and reliable genetic and

genomic data for species monitoring. The Genomics Center has its roots in the genetics laboratory managed by the USDA Forest Service's Rocky Mountain Research Station and is located on the University of Montana campus in Missoula. Scientists conduct research at the genetics laboratory with a focus on delivering science that addresses the needs of land managers. Founded in 1998, the laboratory has grown into a national resource for states, tribes, universities, and private groups that need answers to pressing wildlife management questions for more than 60 species, including wolverines, lynx, and sage grouse. https://www.fs.usda.gov/rmrs/ngc

Research Project: The opportunity is to participate in ongoing research on wildlife genetics at the USFS Rocky Mountain Research Station's National Genomics Center for Wildlife and Fish Conservation. The participant will particularly focus on designing molecular tests for the detection of native and invasive animal and plant species from environmental samples (i.e., eDNA sampling).

Watch a video of Dr. Wilcox describing the research at https://vimeo.com/767396342/14733dc03a

Learning Objectives: This research experience will include assessing available genetic information, generating new molecular sequencing data, and developing and testing new quantitative PCR assays. In addition to these technical laboratory skills, the participant will have opportunities to practice and receive feedback on their ability to communicate complex topics, both written and oral.

The participant's training program will be orchestrated by the mentor to match the participant's strengths, skills, and career development needs to available research projects at the National Genomics Center, but the participant will have the opportunity to collaborate with several research team members.

Mentor: The mentor for this opportunity is Taylor Wilcox (taylor.wilcox@usda.gov). If you have questions about the nature of the research please contact the mentor.

Anticipated Appointment Start Date: January 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 extended for an additional year upon recommendation of USFS 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.

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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 USFS. Participants do not become employees of USDA, USFS, 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 USForestService@orise.orau.gov and include the reference code for this opportunity.

Qualifications

The qualified candidate should have received a bachelor's or master's degree in one of the relevant fields. Degree must have been received within the past five years.

A candidate will be best prepared for this training opportunity if they already have some working experience in a molecular laboratory setting including DNA/RNA extraction, PCR, and genotyping.

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Bachelor's Degree or Master's Degree received within the last 60 month(s).
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12 👁)
  - **Communications and Graphics Design** (2 👁)
  - **Computer, Information, and Data Sciences** (17 👁)
  - **Earth and Geosciences** (21 👁)
  - **Engineering** (27 👁)
  - **Environmental and Marine Sciences** (14 👁)
  - **Life Health and Medical Sciences** (46 👁)
  - **Mathematics and Statistics** (10 👁)
  - **Physics** (16 👁)
  - **Science & Engineering-related** (1 👁)
  - **Social and Behavioral Sciences** (28 👁)
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).