

Opportunity Title: Postdoctoral Research Opportunity in Population Genetics of Animal Parasites

Opportunity Reference Code: USDA-ARS-2020-0033

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-2020-0033

How to 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. All transcripts must be in English or include an official English translation. 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.

If you have questions, send an email to USDA-ARS@orau.org. Please include the reference code for this opportunity in your email.

Application Deadline 1/28/2020 3:00:00 PM Eastern Time Zone

Description *Applications will be reviewed on a rolling-basis.

A research opportunity is currently available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Beltsville Agricultural Research Center (BARC), Animal Parasitic Diseases Laboratory (APDL) located in Beltsville, Maryland.

This project will explore the molecular epidemiology and population genetics of parasite species present in ungulates that are of importance for protecting animal health.

Under the guidance of a mentor, the participant will conduct population genomic investigations of parasitic nematodes. The participant will utilize whole genome and reduced representation techniques (RADseq) to explore population connectivity among hosts. Following genome assembly, phylogenetic and population genetic analyses will be conducted to understand population structure across several geographic scales (local, regional, and continental). The results will help to understand whether wildlife parasites pose risks to livestock and inform management decisions regarding animal husbandry.

This opportunity will provide the following professional development opportunities:

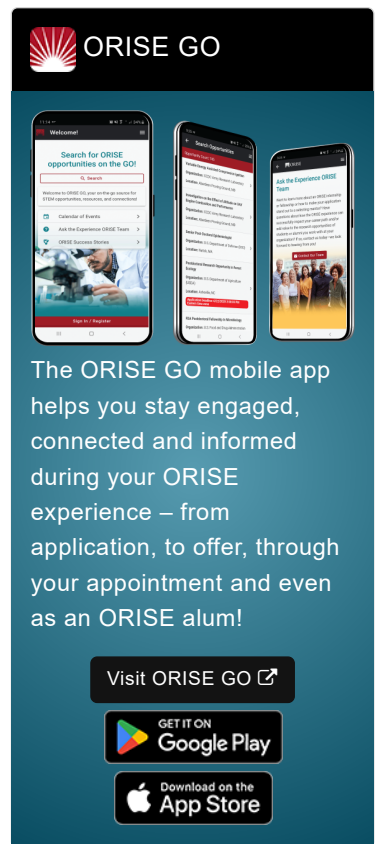
- Introduction to state of the art genomic data acquisition and analysis
- Development of competence in bioinformatics
- Application of advanced population genetic analyses that are applicable to any eukaryotic research system

Anticipated Appointment Start Date: March 2020

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. The initial appointment is for one year, but may be renewed upon recommendation of ARS and is contingent on the availability of funds. The participant will receive a monthly stipend commensurate with educational level and experience. Proof of health insurance is required for participation in this program. The appointment



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is full-time at ARS in the Beltsville, Maryland, area. Participants do not become employees of USDA, ARS, DOE or the program administrator, and there are no employment-related benefits.


This opportunity is available to U.S. citizens, Lawful Permanent Residents (LPR), and foreign nationals. Non-U.S. citizen applicants should refer to the [Guidelines for Non-U.S. Citizens Details page](#) of the program website for information about the valid immigration statuses that are acceptable for program participation.

For more information about the ARS Research Participation Program, please visit the [Program Website](#).

Qualifications The qualified candidate should have received a doctoral degree in one of the relevant fields.

Preferred skills:

- Experience in parasitology with an interest in genomics and bioinformatics
- Demonstrated proficiency in standard molecular biology techniques, including nucleic acid extraction and polymerase chain reaction (PCR).
- Willingness to work with animal samples
- Experience with standard population genetic analyses
- Knowledge of veterinary parasitology

- Eligibility Requirements**
- **Degree:** Doctoral Degree.
 - **Discipline(s):**
 - **Life Health and Medical Sciences** ([5](#) )