

Opportunity Title: APHIS Fellowship in Bovine Tuberculosis Projects

Opportunity Reference Code: USDA-APHIS-2022-0075

Organization U.S. Department of Agriculture (USDA)

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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. At least one recommendation must be received in order for the mentor to view your application.

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

Application Deadline 4/1/2022 3:00:00 PM Eastern Time Zone

Description *Applications are reviewed on a rolling-basis.

APHIS Office/Lab and Location: A research opportunity is currently available with the U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS). The appointment will be conducted with the Field Epidemiology Investigation Services (FIES), which is part of the Veterinary Services' Field Operations located in Fort Collins, Colorado. FIES provides epidemiologic investigation services to federal and state animal health regulatory offices in the U.S.

Research Project: This fellowship in FEIS will focus on bovine tuberculosis (bTB) projects that supports a variety of activities dealing with surveillance and other information generated by disease outbreak investigations of bTB.

Mycobacterium bovis, a member of the MTBC, is an important livestock and human pathogen. Understanding the epidemiology and movement of the pathogen is critical to the control of the disease. Whole genome sequencing (WGS) allows an unprecedented method for better characterizing outbreaks and investigating its source. More detailed herd investigations are needed to determine potential sources of TB introduction. The source of disease for most BTB affected herds is not determined which makes prevention impossible. Veterinary Services has invested considerable resources to developing centralized databases for animal health surveillance and epidemiology information. However, compiling accurate and complete information for each herd is labor intensive.

The selected fellow will collaborate with subject matter experts in the management and analysis of data collected through regulatory cattle herd testing and epidemiological investigation activities related to implementation of the U.S. federal and state bovine tuberculosis eradication program. They will collaborate with veterinarians, veterinary epidemiologists, microbiologists, statisticians, animal health technicians and other scientists in Veterinary Services and state departments of



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agriculture.

Learning Objectives: The participant will have the opportunity to learn about the animal and public health aspects of bTB and its impact on interstate trade, community health, and global animal and public health. They will learn surveillance procedures, diagnostic testing methodologies and algorithms, working with whole genome sequencing results (phylogenetic trees, SNP tables), federal animal health regulations and policy, and modeling. The fellow will present their data in published manuscripts and at national and international meetings involving researchers, regulatory officials, and producer groups.

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

Anticipated Appointment Start Date: February 2022. 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 APHIS and is contingent on the availability of funds.

Level of Participation: The appointment is full-time.

Participant Stipend: The participant(s) will receive a monthly stipend as support for their living and other expenses during this appointment. **The annual stipend rate will be determined upon selection and will range between \$71,000 and \$85,000. Relocation expenses are not available. A travel stipend of \$3,500 will also be provided for the purpose of conducting research or attending conferences to present research results. Candidates will be eligible to receive a health insurance allowance.**

Citizenship Requirements: 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.

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 APHIS. Participants do not become employees of USDA, APHIS, 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.

This is an equal opportunity program open to all qualified individuals without regard to race, color, age, sex, religion, national origin, mental or physical disability, genetic information, sexual orientation, or covered veteran's status.

Questions: Please visit our [Program Website](#). After reading, if you have additional questions about the application process please email USDA-APHIS@ornl.gov and include the reference code for this opportunity.

Qualifications The qualified candidate should have received a master's or doctoral degree (Ph.D. and/or DVM) in

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one of the relevant fields.




Preferred skills:

- Knowledge of epidemiologic and biostatistical methods
- Protocol development
- Proficient at data management including data collection, entry, and validation
- Research technical issues that arise from data collection and management processes
- Proficient at conducting data analyses using excel and other statistical software
- Experience with diagnostic test interpretation and evaluation
- Experience with preparing reports and articles for peer-reviewed journals
- Experience writing SAS or other statistical programs to conduct data analyses and manage data
- Contribute to the coordination of the bTB biosecurity project implementation activities
- Learn about sampling and testing methods for a large, multi-site surveillance program

Point of Contact [Justina](#)

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

Requirements • **Discipline(s):**

- **Communications and Graphics Design** ([1](#) )
- **Computer, Information, and Data Sciences** ([2](#) )
- **Life Health and Medical Sciences** ([14](#) )