

**Opportunity Title:** USDA-ARS Bovine Tuberculosis Research Postdoctoral Fellow

**Opportunity Reference Code:** USDA-ARS-2021-0022

**Organization** U.S. Department of Agriculture (USDA)

**Reference Code** USDA-ARS-2021-0022

**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 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.

**Application Deadline** 1/18/2021 3:00:00 PM Eastern Time Zone

**Description** \*Applications may be reviewed on a rolling-basis and this posting could close before the deadline.

**ARS Office/Lab and Location:** A research opportunity is currently available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), National Animal Disease Center located in Ames, Iowa.

**Research Project:** Under the guidance of a mentor, the selected participant will study the bovine immune response to Mycobacterium bovis infection with the overall goal of developing intervention strategies that will prevent or control tuberculosis in domestic livestock or other reservoir hosts. The participant will define the cellular and molecular immune mechanisms involved in the pathogenesis of bovine tuberculosis by integrating cutting-edge molecular approaches with traditional cellular and molecular biological techniques.

The primary focus of the research will be to understand how the immune system of natural hosts regulates gene expression in response to Mycobacterium bovis infection or vaccination with experimental vaccines.

**Learning Objectives:** The appointment will include further training and application of immunologic techniques for analysis of responses of large animal hosts to infection with Mycobacterium bovis. Areas covered by the training may include cell culture, flow cytometry, immunologic assays, analysis of gene expression, sequencing techniques and/or computational biology analysis.

**Mentor(s):** The mentor for this opportunity is Steven Olsen ([steven.olsen@usda.gov](mailto:steven.olsen@usda.gov)) and the co-mentor is Mitch Palmer ([mitchell.palmer@usda.gov](mailto:mitchell.palmer@usda.gov)). If you have questions about the nature of the research please contact the mentor(s).

**Anticipated Appointment Start Date:** ~Winter 2020. 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



The ORISE GO mobile app helps you stay engaged, connected and informed during your ORISE experience – from application, to offer, through your appointment and even as an ORISE alum!

Visit ORISE GO 

GET IT ON  
 Google Play

Download on the  
 App Store

**Opportunity Title:** USDA-ARS Bovine Tuberculosis Research Postdoctoral Fellow

**Opportunity Reference Code:** USDA-ARS-2021-0022

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.

**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 [USDA-ARS@ornl.gov](mailto:USDA-ARS@ornl.gov) and include the reference code for this opportunity.

**Qualifications** The qualified candidate should have received a doctoral degree in one of the relevant fields, with experience in cellular and molecular immunology.

Preferred skills:

- Familiarity with various techniques including cell culture, flow cytometry, ELISA, RNA-sequencing, and qRT-PCR
- Experience in computational biology and/or large data processing
- Demonstrated research experience related to tuberculosis, intracellular pathogens
- Background in livestock immunology
- Demonstrated proficiency in molecular biological and immunological techniques that have resulted in authorship in peer-reviewed publications
- Experience in assessing gene expression in response to Mycobacterium bovis infection or infection with other intracellular pathogens

- Eligibility Requirements**
- **Citizenship:** U.S. Citizen Only
  - **Degree:** Doctoral Degree.
  - **Discipline(s):**
    - **Environmental and Marine Sciences** ([1](#) )
    - **Life Health and Medical Sciences** ([45](#) )