

Opportunity Title: USDA-ARS Postdoctoral Molecular Biologist Research Fellowship
Opportunity Reference Code: USDA-ARS-2022-0132

Organization U.S. Department of Agriculture (USDA)
Reference Code USDA-ARS-2022-0132
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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

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

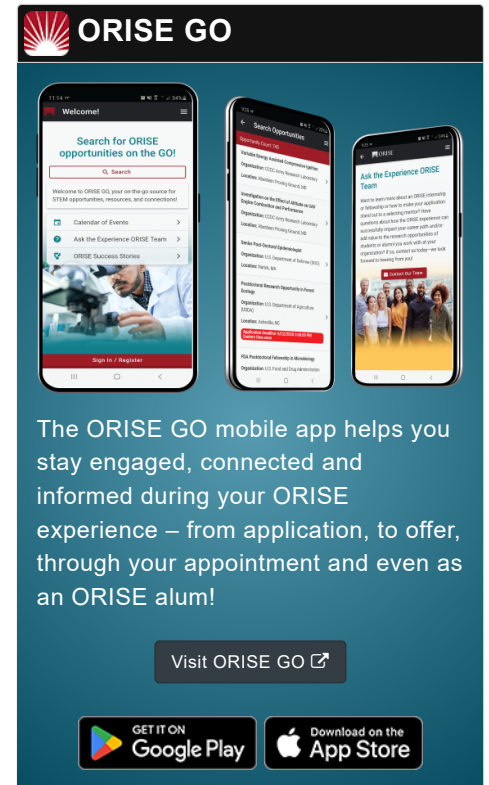
Application Deadline 9/2/2022 3:00:00 PM Eastern Time Zone

Description ***Applications will be reviewed on a rolling-basis and this posting will remain open until filled.**

ARS Office/Lab and Location: A postdoctoral research opportunity is available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), National Animal Disease Center (NADC), in Ames, IA for a motivated and independent scientist to study the mechanisms of the interaction of bacterial pathogens with the ruminant hosts and to develop methodologies to mitigate disease losses in the livestock industry.


Research Project: The Ruminant Diseases and Immunology Research Unit (RDIRU) works on important respiratory diseases in bison and cattle. The selected applicant will contribute research alongside a team of veterinarians, microbiologists, immunologists, bioinformaticians, and animal scientists at RDIRU and other government agencies to investigate *Mycoplasma bovis* associated with respiratory diseases in bison and cattle.

The research goals of this appointment are to identify the virulence determinants of *Mycoplasma bovis* by genome sequencing, conduct pathogenesis studies in bison and cattle, and develop novel vaccines to mitigate respiratory disease in bison and cattle. In addition, the selected applicant would participate in immunology studies to determine effect of immune modulatory therapies (e.g. cytokines) by measuring the changes in immune cell function and microbial loads. The

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appointment may also include collecting, processing, and evaluating samples for immunohistochemistry, RNA detection (PrimeFlow and RNAscope assays), confocal and electron microscopy, RNA sequencing and proteomics.

Learning Objectives: The participant will get a better overall understanding of research through attendance of laboratory meetings when lab members share data, and reading of peer-reviewed papers in the respective field.

Mentor(s): If you have questions about the nature of the research, please contact Rohana Dassanayake (rohana.dassanayake@usda.gov).

Anticipated Appointment Start Date: May 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 for up to two years upon recommendation of ARS 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 commensurate with educational level and experience. **The stipend for this opportunity is \$64,649/year for the first year and \$66,805/year for the second year contingent upon renewal of the contract. A health insurance allowance and travel allowance will also be provided.**

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 ARS. Participants do not become employees of USDA, ARS, DOE or the program administrator, and there are no employment-related benefits. **However, this position requires a pre-employment check and a full background investigation.** 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-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 (e.g. Veterinary Medicine, Microbiology, Molecular and Cellular

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Biology, Immunology, or a related field). Degree must have been received within the past five years.

Preferred skills:

- Experience in basic microbiological, genomics, and immunological techniques
- Fluent technical writing in English for peer-reviewed publications
- A strong background in veterinary medicine and microbiological techniques including procedures such as bacterial culture, isolation, and identification, and other procedures such as tissue culture, flow cytometry, ELISA, and western blotting
- Cellular biology skills, such as cell isolation and cellular function assay
- Bonus points for experience with basic RNA and DNA isolation, PCR design and applications, DNA and RNA sequencing techniques, and large animal handling

Eligibility Requirements

- **Degree:** Doctoral Degree received within the last 60 month(s).
- **Discipline(s):**
 - **Computer, Information, and Data Sciences** (4 )
 - **Earth and Geosciences** (1 )
 - **Environmental and Marine Sciences** (5 )
 - **Life Health and Medical Sciences** (10 )
 - **Mathematics and Statistics** (1 )
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).