

Opportunity Title: USDA-ARS Postdoctoral Fellowship in Animal Disease

Research

Opportunity Reference Code: USDA-ARS-2022-0086

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-2022-0086

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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 3/15/2022 3:00:00 PM Eastern Time Zone

Description *Applications are 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), Animal Disease Research Unit (ADRU) located in Pullman, Washington.

Research Project: The USDA-ARS Animal Disease Research Unit (ADRU) performs research on infectious diseases of agricultural animals to provide solutions to problems that have significant economic impact on livestock industries of the United States. For that, ADRU conducts research on multiple projects, including the development of an effective strategy to control bovine anaplasmosis, caused by the obligate, intracellular tick-borne pathogen, *Anaplasma marginale*.

The primary goal of the project is to better understand the protective anti-A. marginale immune response through: 1) Identifying the components of the immune response that correlate with protection from disease; 2) Identifying the A. marginale proteins against which the protective immune response is directed. The project has a training opportunity in advanced molecular biology techniques, and data analysis. Under the guidance of a mentor, participant activities will include:

- Performing laboratory and animal research related to antibody function and identifying correlates of immunity
- Performing laboratory and animal research related to vaccine development
- Receiving mentoring in scientific writing
- Presentation of research results at scientific conferences

Learning Objectives: The participant will develop and expand his/her professional knowledge of molecular biology, immunology and vaccinology by performing hands-



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on experiments. The participant will have the opportunity of publishing scientific articles describing: 1) The immune correlates of the anti-A. *marginale* protective immune response; and 2) The role of antibodies in the protective immune response; and 3) The immunogenicity and protective capacity of vaccine candidates against bovine anaplasmosis. Moreover, this project will enhance the participant's capability to participate collaboratively to design, plan, and implement approaches to solve livestock problems, which will give them expertise that can be used in different but related research fields.

Mentor(s): The mentor for this opportunity is Susan Noh (susan.noh@usda.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: June 2022. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for two years, but may be renewed 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, 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. 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 and include the reference code for this opportunity.

Qualifications

The qualified candidate should have received a doctoral degree in one of the relevant fields, or be currently pursuing the degree with completion by June 2022. Degree must have been received within five years of the appointment start date.

Experience with molecular biology techniques including DNA cloning, and sequencing, southern blotting, as well as strong data organization and analysis skills with an interest in immunology is desired.

Eligibility Requirements

- **Degree:** Doctoral Degree received within the last 60 months or anticipated to be received by 6/1/2022 11:59:00 PM.

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- **Discipline(s):**
 - **Life Health and Medical Sciences** (11 👁)
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).