Opportunity Title: Research Opportunity in Poultry Diseases
Opportunity Reference Code: ARS-EPVDRU-536-0019-01

Organization U.S. Department of Agriculture (USDA)

Reference Code ARS-EPVDRU-536-0019-01

How to Apply A complete application package 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. Selected candidate must provide proof of completion of the degree before the appointment can start. Proof must be sent to ORISE directly from the academic institution including graduation date and degree awarded. All transcripts must be in English or include an official English translation. Click **Here** for detailed information about acceptable transcripts.
- A current resume/CV
- Two references – While two references are requested, applications will be considered without reference information. It is preferred that a complete application package contains a minimum of one reference.

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

Description A research opportunity in poultry diseases is available with the U.S. Department of Agriculture (USDA) Agricultural Research Service (ARS) U.S. National Poultry Research Center, Endemic Poultry Viral Diseases Research Unit (EPVDRU) in Athens, Georgia.

The project involves the genetic engineering of large DNA viruses the naturally infect avian species. Specifically using state of the art recombination DNA techniques our goals are to manipulated the viral genomes of the avian herpesviruses, Marek's disease and infectious laryngotracheitis viruse in order to create vaccines. The participant will be involved in one or more phases of the research process by performing laboratory and technical assays, and conducting a variety of fundamental and applied studies needed to diagnose, control and eradicate endemic poultry diseases.

The participant will learn how to operate and maintain specialized equipment and automated systems and associated software (i.e., PCR thermocycler, spectrophotometer, photo documentation system, Agilent Bioanalyzer 2100, electrophoresis apparatus, centrifuges, autoclaves, etc.).

The participant will learn how to propagate viruses, and characterize viruses by biological or molecular assays (e.g., cell culture, reverse transcriptase, polymerase chain reaction, DNA and RNA isolation, cDNA synthesis, molecular cloning, next generation sequencing: Illumina, Oxford Nanopore Technologies, restriction endonuclease digestion, gel electrophoresis, western blotting, white light and fluorescence microscopy, and immunostaining.

The participant will collect, prepare, evaluate and verify samples and

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supporting records, as well as, maintain records and compile data and other information from various sources. The participant will also keep detailed records of experimental data, tabulate, and statistically analyzes and summarizes data using personal computers and software programs.

The participant will learn how to maintain inventory of chemicals, stock solutions, etc., prepare solutions and reagents for use in the laboratory, glassware preparation and safely disposes of waste material (both chemical and biological) with general laboratory maintenance.

This program, administered by ORAU through its contract with the U.S. Department of Energy to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and USDA ARS. The initial appointment is for one year, but may be renewed upon recommendation of USDA ARS 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 is part-time. Participants do not become employees of USDA, 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

Applicants should be an undergraduate Junior, Senior or recent graduate in the Life Science curriculum: Biology, Virology, Biochemistry, Molecular Biology, Poultry Science, Infectious Disease, Veterinary, etc.

Specialized experience in the following is high desirable but not required

1. Ability to perform molecular biological, microbiological (viruses, bacteria and yeast) and/or immunological methods and procedures.
2. Ability to operate and maintain laboratory equipment and instruments.
3. Ability to collect and summarize data with a strong basis in computational biology.

Prior bioinformatics skills for the analysis of nucleotide sequencing data would be helpful.

Eligibility Requirements

- **Degree:** Currently pursuing a Bachelor's Degree to be received by 12/31/2021 12:00:00 AM.
- **Discipline(s):**

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- **Engineering** (1 👁)
- **Life Health and Medical Sciences** (13 👁)