Opportunity Title: CDC Zoonotic and Emerging Diseases Fellowship
Opportunity Reference Code: CDC-VSPB-2019-0157

Organization U.S. Department of Agriculture (USDA)

Reference Code CDC-VSPB-2019-0157

How to Apply 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.

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

Application Deadline 12/31/2020 3:00:00 PM Eastern Time Zone

Description ***Applications will be reviewed on a rolling-basis.**

The United States Department of Agriculture (USDA) Agricultural Research Service (ARS) Research Participation Program offers research opportunities in zoonotic and emerging diseases to motivated postgraduates interested in virus-host interactions and developing novel strategies to prevent and control high consequence zoonotic pathogens such as Crimean – Congo Hemorrhagic fever virus and Nipah virus. Opportunities are under a joint research program between the ARS and the Viral Special Pathogens Branch (VSPB), at the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia. The research supports the program at the USDA National Bio-Agro Defense Facility (NBAF) under construction in Manhattan, Kansas.

Under the guidance of a mentor, these research opportunities will involve developing animal models to study virus host interactions, immune response and countermeasure development (i.e. vaccines, biotherapeutics) to prevent and control high consequence zoonotic diseases in humans and animals. The research will involve using reverse genetics systems and other molecular approaches to study in-vitro and in-vivo virus host interactions, mechanisms of dissemination and identify genetic determinants of viral virulence. The research will also focus on characterizing mechanisms leading to protective immune responses in relevant animal models. Genetically modified viruses will be characterized in cell culture and in vivo in animal disease models and ultimately in the natural host. Research will focus in two viral agents: Crimean Congo Hemorrhagic fever virus and Nipah virus. The participant will be part of a highly productive and active research group at the CDC and USDA. This program is an excellent opportunity to train scientists for the future research program at the biosafety level 4 laboratory and animal facilities at NBAF, expected to be fully operational by January 2023.

The Viral Special Pathogens Branch (VSPB) is located at the CDC main campus in Atlanta, GA. Being stationed at CDC offers prospective candidates the opportunity of learning to conduct research with high consequence viral pathogens select agents in BSL-4 facilities. Candidates will have the opportunity of participating in national and international meetings, workshops and training courses for the advancement of their scientific careers in zoonotic emerging infectious diseases. This program is supported by ARS, USDA and is intended to support establishment and standing

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up of the Zoonotic Emerging Animal Disease Research Unit at the National Bio-Agrodefense Facility (NBAF) in Manhattan Kansas.

Although this research opportunity does not guarantee a federal job, participants in this program will be very competitive for future federal and non-federal positions (approximately 200 scientific posts) to be established at the NBAF in Manhattan, Kansas in the near future (2-3 years).

Anticipated Appointment Start Date: Flexible

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 USDA-ARS. The initial appointment is for one year, but may be renewed for an additional year upon recommendation of ARS and is contingent on the availability of funds. The participant will receive a monthly stipend commensurate with educational level and experience, a health insurance stipend supplement, and a travel allowance. Proof of health insurance is required for participation in this program. The appointment is full-time. Participants do not become employees of USDA, DOE, CDC or the program administrator, and there are no employment-related benefits.

While participants will not enter into an employment relationship, this opportunity requires a pre-appointment check and a full background investigation.

This opportunity is available to U.S. citizens.

Qualifications

The qualified candidate should have received a bachelor's, master's, or doctoral degree in one of the relevant fields, or be currently pursuing a master's or doctoral degree. Degree must have been received within five years of the appointment start date.

Preferred skills/experience:

- Experience in biological safety levels 2, 3 or 4 laboratory procedures
- Experience in infectious animal or human diseases, epidemiology, disease ecology
- Experience in biological agent characterization, virus propagation, cell culture, sterile working techniques
- Experience in biological inventory, biosafety regulations and biocontainment procedures
- Experience in small or large animal experimentation
- Experience analyzing biological material including: conducting serological tests (e.g. ELISA, western blot, neutralization)
- Experience in infectious disease field investigation and field studies, sample collection and preservation (desirable)
- Experience in nucleic acid sequencing and sequence analysis; both Sanger and Next Generation sequencing techniques, sequence extraction and analysis using appropriate software (e.g. Sequencher, CLC, MEGA, etc)

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree.
- **Discipline(s):**
  - **Communications and Graphics Design** (1 👁)
  - **Computer, Information, and Data Sciences** (2 👁)
  - **Environmental and Marine Sciences** (1 👁)
  - **Life Health and Medical Sciences** (45 👁)

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- **Mathematics and Statistics** (1 👁)

Affirmation I have received a bachelor's, master's or doctoral degree within the past 5 years, or am currently pursuing a master's or doctoral degree.