Opportunity Title: Postgraduate Research Opportunity in Aquatic Animal Diseases
Opportunity Reference Code: USDA-APHIS-2020-0102

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-APHIS-2020-0102

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-APHIS@orau.org. Please include the reference code for this opportunity in your email.

Application Deadline 8/31/2020 3:00:00 PM Eastern Time Zone

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

The U.S. Department of Agriculture's (USDA) National Veterinary Services Laboratories (NVSL) serves as the Animal and Plant Health Inspection Service (APHIS), VS national veterinary diagnostic reference and confirmatory laboratory for aquatic animal program pathogens, World Organization for Animal Health (OIE) listed diseases, as well as assisting in the identification of emerging unknown etiologic agents causing significant disease problems. This opportunity will focus on next generation sequencing (NGS) and analysis methods for the identification and characterization of OIE listed aquatic pathogens. One overarching objective will be to develop whole genome data sets for OIE listed aquatic animal pathogens that can be used to evaluate and support trace investigations necessary in the event of detection of a high consequence animal pathogen in order to protect domestic and wild aquatic animals and trade opportunities.

The selected participant will have the opportunity to conduct research in a high performance diagnostic laboratory alongside biologists and microbiologists focusing on next generation sequencing (NGS), data pipeline, and analysis methods for the identification and characterization of OIE listed aquatic pathogens, as well as molecular diagnostics where feasible. The participant will collaborate with international subject matter experts (i.e. European Reference Laboratory crustacean and OIE pathogen specific reference laboratories) on aquatic animal diseases important to live animal and commodity trade and will be involved in efforts to obtain specimens for characterization. It is expected that the participant will engage in collaborations with on-site computational biologists and develop collaborations with experts at various national and international research facilities.

This research will be presented at national and international meetings.

Anticipated Appointment Start Date: Summer/Fall 2020

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

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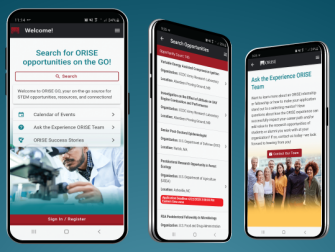
ORISE GO

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through an interagency agreement between DOE and APHIS. The initial appointment is for one year, but may be renewed upon recommendation of APHIS and is contingent on the availability of funds. The participant will receive a monthly stipend commensurate with educational level and experience. **The annual stipend rate for this opportunity will be determined upon selection and will range between $61,000 and $87,000. Relocation expenses are not available. A travel allowance of $5,000 will be available to go to relevant trainings and conferences to present research findings.** Proof of health insurance is required for participation in this program. Candidates will be eligible to receive a health insurance allowance. Health insurance can be obtained through ORISE. The appointment is full-time at APHIS in the Ames, Iowa, area. Participants do not become employees of USDA, APHIS, DOE or the program administrator, and there are no employment-related benefits.

Adjudication of a Special Agency Check (SAC) is required before the selected participant can start. Paperwork for this clearance will be sent to the selected candidate after acceptance of the official offer from ORISE.

This opportunity is available to U.S. citizens, Lawful Permanent Residents (LPR), and foreign nationals (dependent upon immigration status).

Qualifications

The qualified candidate should have received a master's or doctoral degree in one of the relevant fields.

Preferred skills:

- Knowledge of general laboratory methods including aseptic techniques and the use of common laboratory equipment (centrifuge, micropipettes, biosafety cabinets, microscope, etc.)
- Knowledge of biological sciences with an emphasis in microbial genetics
- Ability to follow quality management standards in line with ISO17025
- Functional knowledge of molecular techniques such as PCR; real-time PCR; DNA sequencing and analysis
- Ability to learn quickly and apply new computational techniques
- Proficiency working with FASTA and FASTQ file types
- Experience with National Center for Biotechnology Information and other reference databases
- Interest and experience in data visualization and presentation
- Proficiency in methodical documentation, technical writing, oral communications, interpersonal and organizational skills, as well as critical thinking skills to develop experimental approaches and interpret data

Eligibility Requirements

- **Degree:** Master's Degree or Doctoral Degree.
- **Discipline(s):**
  - **Computer, Information, and Data Sciences** (1 👁)
  - **Environmental and Marine Sciences** (5 👁)
  - **Life Health and Medical Sciences** (9 👁)