Opportunity Title: CDC Molecular Biology Fellowship
Opportunity Reference Code: CDC-CVDB-2019-0165

Organization Centers for Disease Control and Prevention (CDC)

Reference Code CDC-CVDB-2019-0165

How to Apply

A complete application consists of:

- An application
- Transcripts – Click here for detailed information about acceptable transcripts
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- One educational or professional recommendation. Your application will be considered incomplete, and will not be reviewed until one recommendation is submitted.

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

If you have questions, send an email to ORISE.CDC.NCEZID@orau.org. Please include the reference code for this opportunity in your email.

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

Description

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

A research opportunity is currently available at the HPV Laboratory in the Chronic Viral Diseases Branch within the Division of High-Consequence Pathogens and Pathology (DHCPP), of the National Center for Emerging and Zoonotic Infectious Diseases (NCEZID) at the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia.

Under the guidance of a mentor, the selected participant will join laboratory staff in surveillance and reference laboratory projects for HPV prevalence and vaccine impact monitoring. In addition to its routine surveillance testing, the laboratory is developing an HPV plasmid biorepository to serve as standards for assay development and proficiency panels for national and international partners. The lab team is also transitioning HPV next generation sequencing (NGS) assays from research and development to standardized methods for high-throughput public health surveillance. Specific training activities will include:

- Perform bacterial transformation, plasmid extraction, DNA quantification and confirmatory assays for HPV plasmid biorepository expansion
- Curate plasmid biorepository stocks and specimen inventory with laboratory information management system (LIMS)
- Participate in designing and assembling HPV competency assessment (CA) panels
- Coordinate with domestic and international partners for distribution of HPV CA panels
- Contribute to writing standard operating procedures, risk assessments, quality requirements and assay templates for plasmid biorepository and HPV detection assays, including NGS
- Perform deep sequencing of HPV using Illumina platforms in collaboration with CDC Scientific Core-Facility
- Streamline wet-lab and data analysis workflows for efficient, high-quality, high-

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throughput NGS surveillance assays
- Evaluate performance characteristics and applications of the next generation genotyping test for HPV surveillance studies
- Plan and implement bridging experiments between established HPV molecular assays
- Extract nucleic acids from human specimens
- Analyze data with bioinformatics and statistical software
- Conduct literature survey and monitor advances in next generation technologies as applicable to microbial genomics
- Record and maintain hardcopies and electronic copies of laboratory notebooks detailing experiments and results, and submitting technical reports and project summaries of activities performed
- Perform quality control and safety procedures necessary for the performance of laboratory protocols involved in handling biohazard materials
- Participating in laboratory quality management activities as assigned
- Attend weekly Branch meetings that address current scientific activities of the Branch

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, was established through an interagency agreement between DOE and CDC. The initial appointment can be up to one year, but may be renewed upon recommendation of CDC 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 full-time at CDC in the Atlanta, Georgia, area. Participants do not become employees of CDC, DOE or the program administrator, and there are no employment-related benefits.

Qualifications

The qualified candidate should have received a doctoral degree in one of the relevant fields. Degree must have been received within five years of the appointment start date.

Preferred skills:

- Experience with molecular techniques including plasmids and sequencing
- Good oral and written communication skills
- Experience with bioinformatics analysis software (e.g. CLC Genomics Workbench) and statistical analysis (e.g. R)

Eligibility Requirements

- **Degree:** Doctoral Degree received within the last 60 month(s).
- **Discipline(s):**
  - **Life Health and Medical Sciences** (11 👁)