

Opportunity Title: CDC Microbiology Fellowship Opportunity Reference Code: CDC-NCIRD-DVD-2022-0267

Organization Centers for Disease Control and Prevention (CDC)

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A complete application consists of:

- An application
- Transcripts <u>Click here for detailed information about acceptable transcripts</u>
- 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 <u>ORISE.CDC.NCIRD@orau.org</u>. Please include the reference code for this opportunity in your email.

Application Deadline 8/18/2022 3:00:00 PM Eastern Time Zone

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

<u>CDC Office and Location</u>: A research opportunity is currently available with the Division of Viral Diseases (DVD), National Center for Immunization and Respiratory Diseases (NCIRD), at the Centers for Disease Control and Prevention (CDC) located in Atlanta, Georgia.

Research Project: DVD is responsible for surveillance of many viruses associated with vaccine preventable and non-vaccine preventable diseases. The availability of next-generation sequencing (NGS) technologies now makes it possible to routinely obtain full genomic sequence information from clinical samples. As part of implementing Advanced Molecular Detection methodologies for DVD, management/operation of specialized equipment and continual development of standardized laboratory pipelines is key for ensuring high efficiency genomic sequencing of viruses.

To help accomplish this goal, the selected participant will join the DVD NGS Core Team. Under the guidance of a mentor, training opportunities include:

- Evaluating existing laboratory protocols for whole-genome sequencing of viruses, comparing quality, coverage, efficiency, cost and throughput
- Optimizing and standardizing protocols and workflows for each of the viruses studied in DVD (i.e., polioviruses, measles virus, rotaviruses, coronaviruses, etc.)
- Management of laboratory reagents and equipment, including maintenance and operation of multiple NGS platforms (Illumina and Oxford Nanopore sequencers) and automated fluid handling systems

Learning Objectives: The results of this research project will provide DVD with optimized, standardized workflows for generating sequence data for viruses. The selected participant will collaborate with subject matter experts and team members who are performing research on various viruses throughout DVD, and will provide technical and experimental support for constructing libraries and performing sequencing on several NGS platforms to obtain genomic sequence data.

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Mentor(s): The mentor for this opportunity is John-Paul Dubenion (<u>gzx9@cdc.gov</u>). If you have questions about the nature of the research please contact the mentor(s).

<u>Anticipated Appointment Start Date</u>: 2022. Start date is flexible and will depend on a variety of factors.

<u>Appointment Length</u>: The appointment will initially be for up to one year, but may be renewed upon recommendation of CDC and is contingent on the availability of funds.

Level of Participation: The appointment is full-time.

<u>Participant Stipend</u>: The participant will receive a monthly stipend commensurate with educational level and experience.

<u>citizenship Requirements</u>: This opportunity is available to U.S. citizens, Lawful Permanent Residents (LPR), and foreign nationals. Non-U.S. citizen applicants should refer to the <u>Guidelines for Non-U.S. Citizens Details</u> 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 CDC. Participants do not become employees of CDC, 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.

The successful applicant(s) will be required to comply with Environmental, Safety and Health (ES&H) requirements of the hosting facility, including but not limited to, COVID-19 requirements (e.g. facial covering, physical distancing, testing, vaccination).

<u>Questions</u>: Please visit our <u>Program Website</u>. After reading, if you have additional questions about the application process please email <u>ORISE.CDC.NCIRD@orau.org</u> and include the reference code for this opportunity.

Qualifications The qualified candidate should have received a bachelor's or master's (preferred) degree in one of the relevant fields, or be currently pursuing one of the degrees and will reach completion by the start date of the appointment. Degree must have been received within five years of the appointment start date.

Experience in molecular biology, sequencing and sequence analysis is desired.

Eligibility	• Degree: Bachelor's Degree or Master's Degree received within the last
Requirements	60 months or currently pursuing.

- Discipline(s):
 - Computer, Information, and Data Sciences (1. 1)
 - Life Health and Medical Sciences (13.)

Affirmation I certify that I have not previously been employed by CDC or by a



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> contractor working directly for CDC. I understand that CDC does not permit individuals with a prior employment relationship with CDC or its contractors to participate as trainees in the ORISE program. (Exceptions may be granted for individuals who, since the previous CDC employment, have obtained a new STEM degree which necessitates training in a new field.)