

Opportunity Title: CDC Molecular Biology and Genomics Fellowship Opportunity Reference Code: CDC-NCEZID-DHCPP-2022-0188

Organization Centers for Disease Control and Prevention (CDC)

Reference Code CDC-NCEZID-DHCPP-2022-0188

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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.

Application Deadline 7/4/2022 3:00:00 PM Eastern Time Zone

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

<u>CDC Office and Location</u>: A fellowship opportunity is currently available in the Viral Special Pathogens Branch (VSBP) within the National Center for Zoonotic and Emerging Infectious Diseases (NCEZID) at the Centers for Disease Control and Prevention (CDC) in Atlanta, GA.

Research Project: Under the guidance of a mentor, the selected participant will assist laboratory staff in projects related to next generation sequencing (NGS) and other technologies for developing cost-effective, practical and advanced genotyping methods for Human Papillomavirus (HPV). As part of this goal, s/he will plan and perform hands-on experiments with a variety of molecular methods that include NGS incorporating target enrichment approaches as applied to a wide variety of samples including formalin-fixed paraffin embedded (FFPE) tissues. This training environment will provide opportunities to interact and learn with a team of biomedical researchers and computational biologists.

Learning Objectives: Specific research activities may include:

- Conducting laboratory studies to identify cost-effective, practical and advanced HPV genotyping platforms that include target enrichment methods for HPV
- Performing deep sequencing of HPV using Illumina and Ion Torrent platforms in collaboration with CDC Scientific Core-Facility
- Evaluation of Illumina and Ion torrent sequence data following recommended quality control metrics and performance of initial data processing using Illumina and/or other recommended software
- Participating in evaluating performance characteristics and applications of NGS test for HPV surveillance studies
- Conducting literature survey and monitor advances in NGS as applicable to microbial and human genomics
- Recording and maintaining hard copy and electronic copies of



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> laboratory notebooks detailing experiments and results, and submitting technical reports and project summaries of tasks performed as requested

- · Performing quality control and safety procedures necessary for the performance of laboratory protocols involved in interacting with biohazard materials
- · Participating in laboratory quality management activities as assigned
- · Attending weekly Branch meetings that address current scientific activities of the Branch

Mentor(s): The mentor(s) for this opportunity is Dr. Mangalathu Rajeevan (mor4@cdc.gov). Please contact them if you have questions about the nature of this research.

Anticipated Appointment Start Date: July 11, 2022. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for 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.

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

Citizenship Requirements: 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.

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).

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

Qualifications The qualified candidate should have received a bachelor's or master's degree in one of the relevant fields, or be currently pursuing the

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degree with completion by June 30, 2022. Degree must have been received within five years of the appointment start date.

Prior experience with basic laboratory skills performing molecular biology and next generation sequencing as well as database structure and management is highly preferable.

Eligibility Requirements

- **Degree:** Bachelor's Degree or Master's Degree received within the last 60 months or anticipated to be received by 6/30/2022 11:59:00 PM.
- Discipline(s):
 - Chemistry and Materials Sciences (2_●)
 - $\circ~$ Computer, Information, and Data Sciences (1_ $\textcircled{\scriptsize 1}$)
 - ∘ Engineering (2.●)
 - Life Health and Medical Sciences (<u>48</u>.

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