

Opportunity Title: CDC Fellowship in Laboratory Research for Malaria
Transmission Reduction
Opportunity Reference Code: CDC-CGH-DPDM-2022-0237

Organization Centers for Disease Control and Prevention (CDC)

Reference Code CDC-CGH-DPDM-2022-0237

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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
- An essay describing your career goal (upload in Writing Sample area)
- 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 8/8/2022 3:00:00 PM Eastern Time Zone

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

CDC Office and Location: A fellowship is available with the Center for Global Health (CGH) in the Division of Parasitic Diseases and Malaria (DPDM) at the Centers for Disease Control and Prevention (CDC) located in Atlanta, Georgia.

The Centers for Disease Control and Prevention (CDC) is one of the major operation components of the Department of Health and Human Services. CDC works to protect America from health, safety and security threats, both foreign and in the U.S. Whether diseases start at home or abroad, are chronic or acute, curable or preventable, human error or deliberate attack, CDC fights disease and supports communities and citizens to do the same.

Research Project: The selected participant will contribute research to this project, which supports implementation of a high-throughput full pipeline of single nucleotide polymorphism (SNP)-based strain identification and multiplicity of infection (MOI) assessment tools for assessment of transmission levels of *P. falciparum*. Impact of interventions on transmission reduction will assist in policy making for malaria control, particularly regarding combinations of drug intervention to reduce malaria burden across a range of endemicity.

Learning Objectives: Training Focus 1: The fellow will learn to conduct the genetic techniques of SNP barcode testing for genotyping parasites in samples from malaria endemic areas. The techniques include DNA isolation, multiplexing PCR amplification of 24 SNP target barcodes across whole genome, electrophoresis, and next generation sequencing (NGS).

Training Focus 2: The fellow will receive training on the full analytical pipeline on data generated from NGS assays to participate in analytical



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activities as a team member. The full analytical pipeline includes initial bioinformatics, machine learning, strain reconstruction, and MOI calculation.

Training Focus 3: The fellow will receive training on quality control measures for this project at several critical check-points to ensure high quality data collection. The fellow will learn to prepare standard controls for 24 SNP barcode testing. The fellow will also learn to troubleshoot skills for 24 SNP barcode testing as well as for other molecular assays. The fellow will participate in writing Standard Operating Procedures (SOPs) related to this project.

Mentor(s): The mentor for this opportunity is Cecilia Nelson (conelson@cdc.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: August 15, 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.CGH@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should have received a master's degree in one of the relevant fields (e.g. Biology, Molecular Biology, Biochemistry, Public Health), or be currently pursuing the degree with completion by the appointment start date. Degree must have been received within the

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past five years.

Preferred Skills/Experience:

- Highly motivated
- Interested in molecular biologic laboratory techniques
- Able to work independently and also as part of a team

- Eligibility Requirements**
- **Degree:** Master's Degree received within the last 60 months or currently pursuing.
 - **Academic Level(s):** Graduate Students or Post-Master's.
 - **Discipline(s):**
 - **Computer, Information, and Data Sciences** ([1](#))
 - **Life Health and Medical Sciences** ([48](#))

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