

Opportunity Title: CDC Research Opportunity for Molecular Surveillance of Gonococcal Antimicrobial Resistance

Opportunity Reference Code: CDC-NCHHSTP-2023-0117

Organization Centers for Disease Control and Prevention (CDC)

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How to Apply **Connect with ORISE...on the GO!** Download the new ORISE GO mobile app in the [Apple App Store](#) or [Google Play Store](#) to help you stay engaged, connected, and informed during your ORISE experience and beyond!

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 7/15/2023 3:00:00 PM Eastern Time Zone

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

CDC Office and Location: An ORISE fellowship opportunity is available in the National Center for HIV, Viral Hepatitis, STD, and TB Prevention (NCHHSTP) within the Division of STD Prevention (DSTDP) 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 Gonorrhea NAAT (Nucleic Acid Amplification Tests) Unit within the STI Laboratory Reference and Research Branch (SLRRB) focuses on developing molecular methods to subtype and detect antimicrobial resistance (AMR) markers in *Neisseria gonorrhoeae* directly from clinical specimens. This fellowship focuses on implementing molecular assays that will enhance molecular surveillance of antimicrobial resistance in *N. gonorrhoeae*. Under the guidance of a mentor activities may include the following:

- Evaluating new and existing methods for molecular detection of gonococcal AMR loci
- Performing DNA extraction, real-time PCR, and Sanger sequencing on clinical specimens
- Partial genetic characterization of new allele types involved



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- in gonococcal AMR
- Collaborating in a team setting to establish assay parameters and troubleshoot issues
- Contribute to the development of workflows and standard operating procedures to integrate methods for ongoing surveillance activities
- Participate in the automation process of molecular methods of AMR detection using the Open Access functionality of the Panther Fusion System

Learning Objectives: The participant will partner with team personnel and other researchers in the branch and will have the opportunity to enhance professional growth and development by participating in trainings, workshops, conferences, and in-service meetings. The selected fellow will collaborate with subject matter experts and team members who are working on molecular surveillance of AMR in gonococcal infections.

Mentor(s): The mentor for this opportunity is Julio Ayala Figueredo (pyd0@cdc.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: September 1, 2023. 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

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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.NCHHSTP@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 one of the degrees with completion by July 31, 2023. Most recent degree must have been received within five years of the appointment start date.

Preferred skills:

- Training or experience in molecular biology techniques (e.g., nucleic acid extraction, PCR, RT-PCR, Sanger Sequencing, whole genome sequencing)
- Demonstrated experience in basic laboratory practices and universal laboratory safety precautions at the level of BSL-2
- Basic knowledge of bacterial pathogens, prokaryotic genomic organization, and basic mechanisms of antimicrobial resistance
- Interest in STD pathogens and public health

Eligibility Requirements

- **Degree:** Bachelor's Degree or Master's Degree received within the last 60 months or anticipated to be received by 7/31/2023 12:00:00 AM.
- **Discipline(s):**
 - **Chemistry and Materials Sciences** (2 )
 - **Life Health and Medical Sciences** (20 )
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).

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.)