

Opportunity Title: CDC Fellowship in Macaque Models of HIV Treatment and

Prevention

Opportunity Reference Code: CDC-NCHHSTP-2024-0135

Organization Centers for Disease Control and Prevention (CDC)

Reference Code CDC-NCHHSTP-2024-0135

How to Apply To submit your application, scroll to the bottom of this opportunity and click APPLY.

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.

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

CDC Office and Location: A fellowship opportunity is currently available with the Laboratory Branch (LB), in the Division of HIV Prevention (DHP) of the National Center for HIV, Viral Hepatitis, STD, and TB Prevention (NCHHSTP), at the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia. Successful applicants will be required to relocate to Atlanta, Georgia for the fellowship.

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 purpose of the project "Macaque models of HIV treatment and prevention" is to identify in animal models novel long-acting HIV treatment and prevention modalities that can i) maximize virus suppression in persons living with HIV or ii) prevent infection when used for pre-exposure prophylaxis (PrEP) in uninfected individuals. The fellow will be trained by a mentor within the HIV Laboratory branch at the Division of HIV Prevention at CDC. The Laboratory Branch has unique expertise in drug pharmacokinetics and animal models of virus suppression, remission, and PrEP. The research assignment requires the use of molecular assays to detect and characterize RNA and DNA sequences in macaques infected with simian HIV (SHIV). Specific activities include:

• Provide assistance in drug pharmacokinetic studies with anti-HIV



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inhibitors in animal models. Define drug penetration in cells and tissues.

- Provide assistance in animal studies that investigate the efficacy of PrEP or treatment products using simian HIV transmission and infection models.
- Perform molecular biology techniques including cloning and sequence analysis to characterize viruses, assess drug resistance profiles, and investigate evolution of viral genomes.
- Provide assistance in the development and optimization of new laboratory assays, and modify existing assays as required to characterize virus populations in blood and tissues.
- Draft manuscripts for publication in peer reviewed scientific journals, and present and defend research findings orally at CDC and scientific conferences.

Learning Objectives: Upon completing the fellowship, the fellow will:

- Gain knowledge on CDC's efforts towards preventing new HIV infections, improving health outcomes for persons with HIV, and reducing HIV-related disparities and health inequities
- Understand the value of preclinical models to investigate novel HIV prevention and treatment strategies
- Assist with the completion of at least one preclinical study to investigate a new strategy to achieve HIV remission or prevent infection
- Write manuscripts for publication and present findings at scientific conferences

Mentor(s): The mentor for this opportunity is Gerardo Garcia-Lerma (jng5@cdc.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: October 14, 2024. 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: Stipend rates may vary based on numerous factors, including opportunity, location, education, and experience. If you are interviewed, you can inquire about the exact stipend rate at that time and if selected, your appointment offer will include the monthly stipend rate.

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 <u>Guidelines for Non-U.S. Citizens</u> <u>Details page</u> 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

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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.NCHHSTP@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should have received a bachelor's degree in one of the relevant fields or be currently pursuing the degree. Degree must have been received within five years of the appointment start date or be currently pursuing.

Preferred Skills:

- · Bachelor's degree in virology, immunology, biochemistry, microbiology, cell, and/or molecular biology.
- Ability to function in a team environment or independently, collaborate with team members and external researchers, communicate proficiently in writing and orally.
- Experience in the use of molecular and serological diagnostic assays to monitor and characterize viral infection including RT-PCR, sequence analysis and/or drug resistance testing.
- · Experience with HIV/SIV, animal models, antiretroviral drugs and drug pharmacology highly desirable.

Eligibility Requirements

- Degree: Bachelor's Degree received within the last 60 months or currently pursuing.
- Discipline(s):
 - Life Health and Medical Sciences (5_)

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.)

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