Opportunity Title: CDC Health Informatics, Statistics and Ecology Fellowship
Opportunity Reference Code: CDC-NCEZID-DVBD-2022-0288

Organization	Centers for Disease Control and Prevention (CDC)
Reference Code	CDC-NCEZID-DVBD-2022-0288
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	12/12/2022 3:00:00 PM Eastern Time Zone
Description	***Applications will be reviewed on a rolling-basis.**

CDC Office and Location: A research opportunity is currently available with the Dengue Branch Entomology and Ecology Unit within the Division of Vector-Borne Diseases (DVBD), National Center for Emerging and Zoonotic Infectious Diseases (NCEZID) at the Centers for Disease Control and Prevention (CDC) in Fort Collins, Colorado.

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.

The Dengue Branch Entomology and Ecology Unit has a history of innovative research with broad implications for prevention and control of these diseases locally within Puerto Rico, in the continental United States, and internationally. The Unit has been working on improving the monitoring and surveillance of Ae. aegypti and other mosquitoes to better understand its ecology and to measure the impact of mosquito control interventions. The Unit has also made progress towards understanding the dynamics of arboviruses in mosquito populations in the context of defining mosquito density thresholds that are necessary for arbovirus transmission and how incidence of arboviruses in mosquitoes relate to human infections. Investigations on improved mosquito control strategies are underway with the participation of several stakeholders.

Research Project: The Fellow will participate in field investigations on establishing what are the minimum numbers of *Aedes aegypti* mosquitoes required to prevent rampant outbreaks of arboviruses such as dengue (DENVs), chikungunya (CHIKV), Zika (ZIKV), or yellow fever (YFV) viruses.

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To assess if given vector density levels are protective against local arbovirus outbreaks, we first need to be able to keep mosquito densities at various but steady levels for long enough for arboviruses to show up in the various observational sites in nature. Our approach to understanding thresholds is unique because we have demonstrated how to manage and keep steady levels of Ae. aegypti mosquitoes in urban communities by mass mosquito trapping and for long enough to be able to detect differences in arbovirus prevalence in mosquitoes. Mosquito abundance and weather are monitored weekly at each site and female Ae. aegypti specimens will be analyzed for the presence of dengue, chikungunya, and Zika viruses. Human infections will be monitored using annual sero surveys and passively detected cases of arboviral diseases.

Learning Objectives: The Fellow will participate in various aspects of the research, including training in mosquito surveillance and control activities, data quality control, equipment calibration, statistical analyses, field work, and discussion and presentations of results.

Mentor(s): The mentor for this opportunity is Gilberto Felix (ckn5@cdc.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: **September 26, 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 and Lawful Permanent Residents (LPR).

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.

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Qualifications The qualified candidate should have received a master's degree in one of the relevant fields, or be currently pursuing the degree with completion by December 31, 2022. Degree must have been received within five years of the appointment start date.

Preferred Skills:

- Experience in experimental field investigations
- Experience with statistical software
- Demonstrated skill in analyzing data from studies and projects
- Experience in writing and communicating research or surveillance findings
- Demonstrated skill in successful communication and collaboration with multidisciplinary team
- Demonstrated ability to collaborate in team projects and handle multiple priorities in a fast-paced research environment
- Excellent verbal and written communications skills required in both English and Spanish

Eligibility Requirements

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Master's Degree received within the last 60 months or anticipated to be received by 12/31/2022 12:00:00 AM.
- **Discipline(s):**
  - **Earth and Geosciences** (1 👁)
  - **Life Health and Medical Sciences** (9 👁)
  - **Mathematics and Statistics** (3 👁)
  - **Social and Behavioral Sciences** (1 👁)

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.)