

Opportunity Title: CDC Summer Fellowship in Community Mitigation and Economic Impacts

Opportunity Reference Code: CDC-OD-2024-0030

Organization Centers for Disease Control and Prevention (CDC)

Reference Code CDC-OD-2024-0030

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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 3/31/2024 3:00:00 PM Eastern Time Zone

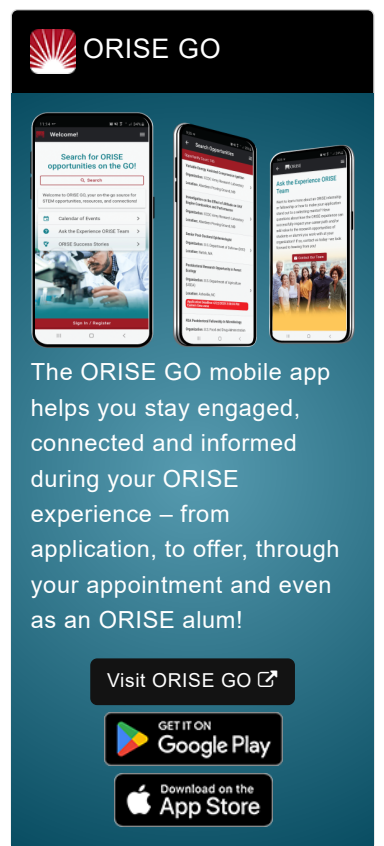
Description ***Applications will be reviewed on a rolling-basis.**

CDC Office and Location: A research opportunity is available in the Centers for Disease Control and Prevention (CDC). Selected candidates must either live within a 50 mile radius of an approved CDC duty location or be able to relocate before the start of the appointment.

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 goal of this project is to estimate the public health and societal impact of individual measures to prevent the spread of respiratory diseases at the community level. This project will use health economic frameworks in combination with highly detailed models of disease spread in a population. Agent-based models are uniquely suited to provide insights about the community-level impact from individual behaviors. Hence, this project will use agent-based models developed by the Community Mitigation and Economic Impacts team using the GCM modeling framework. The fellow will be part of the Community Mitigation and Economic Impacts team at the CDC's Center for Forecasting and Outbreak Analytics. Our team is uniquely positioned to answer questions involving infectious disease modeling combined with economic analyses.

Learning Objectives: The fellow will benefit from being in a collaborative environment with a team of expert modelers and programmers and will learn specific methods to design and implement mathematical models of infectious disease, with emphasis in agent-based models. As a result of this fellowship, the candidate will learn skills for infectious disease modeling,



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quantitative data analysis, optimization, project management, and communication.

Mentor(s): The mentor for this opportunity is Guido España (ukd0@cdc.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: May 20, 2024. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for 10 weeks, 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 [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.OD@ornl.gov and include the reference code for this opportunity.

Qualifications The qualified candidate will have earned a associate's, bachelor's, master's, or doctoral degree within the past 5 years or will be currently pursuing a degree in a relevant field (mathematics, computer science, biology, or epidemiology).

Preferred skills:

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- Proficiency in programming using R or python
- Experience with dynamical modeling and familiarity with models of infectious disease dynamics
- Willingness to learn
- Experience using Github, experience with object-oriented programming (java or C++)
- Experience in optimization problems, and health economics

Eligibility Requirements

- **Degree:** Associate's Degree, Bachelor's Degree, Master's Degree, or Doctoral Degree received within the last 60 months or anticipated to be received by 6/3/2024 12:00:00 AM.
- **Discipline(s):**
 - **Computer, Information, and Data Sciences** ([17](#) 👁)
 - **Engineering** ([27](#) 👁)
 - **Life Health and Medical Sciences** ([51](#) 👁)
 - **Mathematics and Statistics** ([11](#) 👁)
 - **Other Non-Science & Engineering** ([2](#) 👁)
 - **Physics** ([16](#) 👁)
 - **Social and Behavioral Sciences** ([2](#) 👁)

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.)