

Opportunity Title: CDC Air Pollution & COVID-19 Epidemiology Analysis

Fellowship

Opportunity Reference Code: CDC-NCEH-2021-0021

Organization Centers for Disease Control and Prevention (CDC)

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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.

If you have questions, send an email to ORISE.CDC.NCEH@orau.org. Please include the reference code for this opportunity in your email.

Application Deadline 1/12/2021 3:00:00 PM Eastern Time Zone

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

A research opportunity is currently available within the Asthma and Community Health Branch (ACHB), Division of Environmental Health Science and Practice (DEHSP) of the National Center for Environmental Health (NCEH) at the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia.

The ongoing COVID-19 pandemic has restricted movement of individuals and communities due to telecommuting, shelter-in-place directives, and reduction of non-essential travel. While travel reductions are in place to mitigate the spread of the pandemic, they might have also affected population-level exposure to certain environmental hazards. Most notably from an environmental perspective, stay-at-home orders and activity restrictions that were in place in Hubei province, China caused a significant drop in air pollution due to a cessation of emissions from major air pollution sources. Similarly, a significant reduction in air pollution was experienced in many major cities of the United States (U.S.) as most states have instructed residents to stay at home. In some cities, a continued reduction in air pollution is observed as motor vehicle traffic has not returned to pre-pandemic levels.

Throughout the course of this research project, the participant will receive training on use of air pollution and health data for epidemiologic studies. The participant will support analytic tasks related to understanding location-specific reduction in air quality levels during the period with COVID-19 restrictions, and the potential impact this has on human health. Under the guidance of a mentor, the participant will receive training and conduct the following tasks:

- Download and process air quality data from air quality monitoring networks and



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remote sensing databases

- Download and process meteorological data and other contextual datasets
- Conduct regression analysis (under supervision) to model a relationship between the extent of air quality change and various contextual factors
- Perform other analytical tasks as needed

In addition to data analysis, related items may include literature review, data acquirement and cleaning, and development of technical report(s) or related materials. As part of the climate science team, the participant will receive training on the team's research and activities by receiving mentorship from staff scientists through team projects. The participant will also have the opportunity to participate in relevant trainings, workgroups, or communities of practice to further their knowledge, skills, and abilities.

Anticipated Appointment Start Date: January 5, 2021 (start date is flexible)

This program, administered by ORAU through its contract with the U.S. Department of Energy to manage the Oak Ridge Institute for Science and Education, was established through an interagency agreement between DOE and CDC. The initial appointment is for one year, but may be renewed upon recommendation of CDC contingent on the availability of funds. The participant will receive a monthly stipend commensurate with educational level and experience. Proof of health insurance is required for participation in this program. The appointment is full-time at CDC in the Atlanta, Georgia, area. Participants do not become employees of CDC, DOE or the program administrator, and there are no employment-related benefits.






Qualifications

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

Preferred skills:

- Experience working with complex datasets and using SAS or related statistical software to analyze health outcomes
- Strong interest in environmental health

Eligibility Requirements

- **Degree:** Master's Degree or Doctoral Degree received within the last 60 months or currently pursuing.
- **Discipline(s):**
 - **Computer, Information, and Data Sciences** (1 )
 - **Earth and Geosciences** (2 )
 - **Engineering** (1 )
 - **Environmental and Marine Sciences** (2 )
 - **Life Health and Medical Sciences** (2 )