Opportunity Title: CDC Chemistry Elemental Analysis Fellowship
Opportunity Reference Code: CDC-NCEH-DLS-2022-0387

Organization Centers for Disease Control and Prevention (CDC)

Reference Code CDC-NCEH-DLS-2022-0387

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.

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

CDC Office and Location: Two research opportunities are currently available with the Division of Laboratory Sciences (DLS) within the National Center for Environmental Health (NCEH) at the Centers for Disease Control and Prevention (CDC) 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: This project involves quantifying total elemental concentrations in blood, serum, or urine using inductively coupled plasma mass spectrometry, and designing, developing, and validating analytical methods to detect human exposure to inorganic chemicals.

Learning Objectives: Under the guidance of a mentor, the participant will be trained in the following research activities:

- laboratory safety within a level 2 biological safety laboratory (BSL-2)
- quality control (QC) and quality assurance (QA) processes such as those required by the 1988 Clinical Laboratory Improvement Amendments act (CLIA 88)
- theory, use, optimization, troubleshooting, and maintenance of quadrupole ICP-MS for multi-element analysis (e.g. cadmium, lead, and uranium) of urine or blood
- sample and reagent preparation techniques for trace element analysis of urine or blood within a cleanroom
- operation and programming of automated, robotic sample preparation station
- method troubleshooting and validation

Mentor(s): The mentor for this opportunity is Jeffrey Jarrett (jhj8@cdc.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: Early 2023. Start date is flexible

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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.

Questions: Please visit our Program Website. After reading, if you have additional questions about the application process please email ORISE.CDC.NCEH@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 and will reach completion by the appointment start date. Degree must have been received within five years of the appointment start date.

Preferred skills:

- Experience with inductively coupled plasma mass spectrometry (ICP-MS)
- Strong background in instrument maintenance, solution preparation, and Microsoft Excel
- Skilled in technology

Eligibility Requirements

- **Degree:** Bachelor's Degree or Master's Degree received within the last 60 months or currently pursuing.
- **Overall GPA:** 3.00
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (11 👁)
  - **Life Health and Medical 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.)

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