Opportunity Title: Microbiology Postdoc: Transformation of Pb by the Mouse Gut Microbiome.
Opportunity Reference Code: EPA-ORD-NHEERL-GED-2018-05

Organization U.S. Environmental Protection Agency (EPA)

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How to Apply 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
- Two educational or professional references

All documents must be in English or include an official English translation.

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

Description The research participant will have the opportunity to conduct research focusing on heavy metal transformations in the mouse gut and how those transformations may affect the bacterial flora. The larger aim of the research project is to assess the effects of soil treatments on the immobilization, bioavailability, and toxicity of Pb using the mouse model.

Research participant activities may include:

- Participating in multidisciplinary team research with EPA scientists (toxicologists, microbiologists, mineralogists)
- Gaining experience in the microbiology of the digestive system
- Understanding how toxic chemicals are transformed in the intestine
- Examining effects of heavy metals on the gut microbiome
- Integrating chemical and microbiological data sets
- Presenting research results at national meetings
- Preparing and editing manuscripts for scientific journal articles that communicate the research findings
- Learning how multidisciplinary research is used to help solve environmental problems of national significance

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 EPA. The initial appointment is for one year, but may be renewed upon recommendation of EPA and is 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 in the Gulf Breeze, Florida area. Participants do not become employees of EPA, DOE or the program administrator, and there are no employment-related benefits.

The mentor for this project is Richard Devereux

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(devereux.richard@epa.gov). The anticipated start date for the appointment is December 1, 2018.

Qualifications This opportunity is for postdoctoral research on transformations of lead (Pb) in the mouse intestine following ingestion, how those changes may affect toxicity, and how lead may alter the microbiome. The candidate will either have fulfilled the requirements of a Ph.D., or will complete their Ph.D. by the end of the Fall 2018 semester, in microbiology or microbial ecology. Experience with intestinal microbiology, heavy metal microbiology, and bioinformatics would be helpful. Experience with microbiome analyses along with the necessary bioinformatics skills is preferred.

Eligibility Requirements

- **Degree:** Doctoral Degree.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (1)
  - **Earth and Geosciences** (1)
  - **Life Health and Medical Sciences** (2)
  - **Mathematics and Statistics** (2)