

**Opportunity Title:** Occupational Risk Assessment Fellowship - CDC

**Opportunity Reference Code:** CDC-NIOSH-2018-0054



**Organization** Centers for Disease Control and Prevention (CDC)

**Reference Code** CDC-NIOSH-2018-0054

**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 [CDCrpp@orau.org](mailto:CDCrpp@orau.org). Please include the reference code for this opportunity in your email.

**Description** This fellowship is part of the Collegiate Leaders in Occupational Safety and Health at the National Institute for Occupational Safety and Health (NIOSH) in Cincinnati, Ohio. These internships are located in the Risk Evaluation Branch of the Education and Information Division of NIOSH. The primary mission of the Risk Evaluation Branch is to assess the risks of workplace hazards, particularly those associated with chemical exposures. These risk assessments support NIOSH authoritative recommendations, such as Recommended Exposure Limits (RELs), which ideally represent air concentrations of chemicals that workers could inhale over their entire working lifetime without serious harm. Determining the air concentrations that are not hazardous to workers requires a multi-disciplinary team approach. The Risk Evaluation Branch consists of toxicologists, epidemiologists and statisticians who evaluate data on the toxicity of chemicals (and other hazard data) and build statistical models to predict risks to workers based on existing human epidemiology and animal toxicology studies. Risk assessment is an applied science, at the intersection between human health research and health policy.

The fellow will be trained in quantitative and/or qualitative risk assessment of workplace chemical hazards related to health outcomes, such as cancer, neurotoxicity, respiratory dysfunction, etc. For a given workplace hazard, the participant would learn how to review scientific literature, extract data from scientific journal articles, and learn about and implement the quantitative risk assessment procedures and statistical models used to assess hazards, learn about issues related to risk assessment such as mode of action of chemicals, data uncertainty, and integration of human and animal data to draw conclusions about chemical hazards. This may include learning about chemicals as groups or families based on chemical structure, hazard, and/or mode of action. The interns will participate in team discussions with a multidisciplinary team of toxicologists, epidemiologists and statisticians, but will have a stand-alone risk assessment project that they will develop and complete, with guidance from the mentor and team members. Typical projects include assessment of risks of exposure to a single chemical, identification of the scientific basis for families of chemicals with Immediately Dangerous to Life and Health values, research and evaluation of methods to extrapolate animal toxicology data to human workplace exposures.

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 3 months, but may be renewed upon recommendation of CDC contingent on the availability of funds. The desired start date is May 15, 2018. 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 Cincinnati, Ohio area. Participants do not become employees of the CDC, DOE or the program administrator, and there are no employment-related benefits.







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### Qualifications

- Undergraduate: Prefer junior or senior with a major in biology, chemistry, public health, statistics, engineering or allied subjects.
- Graduate: Enrolled in a masters or Ph.D. program in biology, chemistry, toxicology, epidemiology, public health, statistics, engineering or allied fields
- Preferred undergraduate candidates would have completed some college-level biology, chemistry, and/or public health (or allied subjects) classes and at least one semester of statistics. Evidence of communication skills (written and oral) and ability to participate in team projects is a plus. Knowledge of typical office software (e.g., Microsoft Word, PowerPoint, Excel) required. Facility with statistical software a plus.
- Preferred graduate candidates would have completed an undergraduate major in biology, chemistry, public health, statistics, engineering or allied majors and be enrolled in a similar major. Completion of graduate-level toxicology, epidemiology, statistics (or allied) classes is desirable. In addition, evidence of communication skills (written and oral) and ability to participate in team projects is a plus. Knowledge of typical office software (e.g., Microsoft Word, PowerPoint, Excel) required. Facility with statistical software a plus.
- Recent graduates within the past 5 years (60 months) will also be considered

### Eligibility Requirements

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Associate's Degree, Bachelor's Degree, Master's Degree, or Doctoral Degree received within the last 60 month(s).
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12 )
  - **Computer, Information, and Data Sciences** (2 )
  - **Engineering** (3 )
  - **Environmental and Marine Sciences** (3 )
  - **Life Health and Medical Sciences** (45 )
  - **Mathematics and Statistics** (10 )