Opportunity Title: Emergent Statistical Approaches in Quantitative Health Risk Assessment
Opportunity Reference Code: EPA-ORD-NCEA-DC-2016-01

Organization U.S. Environmental Protection Agency (EPA)

Reference Code EPA-ORD-NCEA-DC-2016-01

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 A faculty research project training opportunity is currently available at the U.S. Environmental Protection Agency's (EPA) Office of Research and Development (ORD)/National Center for Environmental Assessment (NCEA). The appointment will be served in Arlington, Virginia.

NCEA is responsible for developing human health assessments of chemicals (such as formaldehyde, phthalates, heavy metals, volatile organic solvents, etc.) under the Integrated Risk Information System program. Quantitative Risk Methods Group is a multidisciplinary science group focused on improving quantitative methods and tools for applications in environmental and human health risk assessment. The group provides a central focus within NCEA for application, guidance, and research on state of the art approaches for quantitative assessment of risks to human health.

A wide range of mathematical and statistical issues arise in the analysis and interpretation of data for NCEA's chemical assessments. These data may be obtained from epidemiological investigations and laboratory animal bioassays as well as from molecular toxicology/epidemiology, pathway-based biomarker studies or from laboratory studies of mechanisms of toxicity. The participant will have the opportunity to learn and develop Bayesian methods for combining information from those data streams. S/he may collaborate with scientists across those disciplines to participate in original interdisciplinary scientific research.

Through this project, the research participant will have the chance to be trained in the development of emergent approaches in quantitative health risk assessment. S/he will gain an understanding of how scientific evidence is used to inform decisions in the development of EPA assessments.

Additionally, the research participant will have the opportunity to learn and conduct quantitative analyses that contribute to EPA scientific chemical health assessments and potentially lead to peer-reviewed publications. These highly influential science assessments form key scientific support for EPA regulatory decisions and typically have significant implications for national and international environmental policy development and

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implementation. S/he may also participate in research projects with other NCEA divisions, including the IRIS Program, and potentially scientists from other EPA Labs, Centers or Offices in the evaluation of evidence related to the health effects of environmental agents. Such collaborations provide opportunities to learn and develop new scientific approaches that advance research in risk assessment and will be included in the Research Project Plan.

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 EPA.

Qualifications

Applicants must be a full-time faculty member (PhD or ScD) at an accredited U.S. college or university. Experience with Bayesian statistical analysis of epidemiological and/or toxicological data (or Bayesian hierarchical modeling/analysis in other fields) would enhance this research opportunity.

The appointment is part time (20 percent of full time) during the academic year, and up to full time during the summer months. The appointment is for one year and may be renewed upon recommendation of EPA and contingent on the availability of funds. The participant will receive a monthly stipend based on academic salary. Funding may be made available to reimburse the participant's travel expenses to present the results of his/her research at scientific conferences. No funding will be made available to cover travel costs for pre-appointment visits, relocation costs, tuition and fees, or participant's health insurance. The participant must show proof of health and medical insurance. **The participant does not become an EPA employee**.

The mentor for this project is Leonid Kopylev (kopylev.leonid@epa.gov) and the anticipated start date is January 3, 2017.

Eligibility Requirements

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Doctoral Degree received within the last 60 month(s).
- **Academic Level(s):** Faculty.
- **Discipline(s):**
  - **Mathematics and Statistics** (2 👁)