

**Postgraduate Research Participation Program
U.S. Environmental Protection Agency
National Center for Environmental Assessment
Cincinnati, Ohio**

Project #: EPA–NCEA 2008–04

A research project training opportunity is available through the Postgraduate Research Participation Program at the U.S. Environmental Protection Agency (EPA), National Center for Environmental Assessment (NCEA) in Cincinnati, Ohio.

Project Description: As part of EPA’s mission to protect human health and the environment, NCEA is conducting a study entitled “The Massachusetts’ Epidemiological Study of Birth Outcomes and Disinfection Byproduct Exposures.” This study will help address research needs identified by EPA’s program offices. It will include an examination of the potential risk of adverse reproductive outcomes, such as birth defects, fetal death and fetal growth retardation, in relation to different types of water disinfection and disinfection byproduct exposures. The study population will include births occurring to residents of Massachusetts based on birth certificate data from 1996 to 2004. The relevant exposure data made available from state agencies and individual water companies are currently being collected, processed, and cleaned.

NCEA is seeking a highly-motivated individual to serve on a project team conducting this epidemiological study and other exposure assessment projects. This training program will provide the selected person with the knowledge, skills, and abilities needed to conduct epidemiological studies with potential application to human health risk assessments.

Specific Tasks: The research fellow will be trained in data analysis and data management aspects of this study including data quality control issues as noted below. The fellow will gain experience in conducting exposure assessments of disinfection byproducts and epidemiological studies related the effect of disinfection byproducts on various birth outcomes. The selected individual will also learn by interactions with other individuals and teams on cross-cutting scientific issues that arise in NCEA. With guidance from the mentor, the participant may be involved in the following training activities related to this project:

- Facilitation of ongoing exposure data collection and cleaning activities
- Development of exposure assessment methods for disinfection byproducts
- Identification of and development of approaches to address other cross-cutting scientific issues, including methodological and statistical issues that arise
- Participation in the development of manuscripts on exposure assessment for disinfection byproducts
- Coordination and management of a large birth outcome database
- Statistical analysis of exposure assessment and epidemiological data
- Participation in the development of epidemiological manuscripts examining disinfection byproducts in relation to adverse birth outcomes

The participant will be mentored by an NCEA team member. This participant will have latitude in exercising independent initiative and judgment in the research commensurate with the level of training.

Qualifications and Skills: Applicants must have received a master's or doctoral degree in epidemiology, environmental sciences, statistics, public health or a related field relevant to this project within five years of the desired starting date. This training opportunity requires knowledge of epidemiological and statistical principles. Data analysis and statistical modeling experience is required, and knowledge of a statistical programming language (e.g., SAS, STATA, etc.) is preferred. Some of the anticipated data analysis includes logistic regression, linear regression modeling and analysis of variance (ANOVA). Prior data management experience with large datasets is desirable. Effective oral and written communication, interpersonal, analytical and organizational skills are essential. Applicants should possess the ability to perform both independently and within a team environment while maintaining attention to detail

The program is open to all qualified individuals without regards to race, sex, religion, color, age, physical or mental disability, national origin, or status as a Vietnam and/or disabled veteran. U.S. citizenship or lawful permanent resident status is preferred (but can also hold an appropriate visa status, however, an H1B visa is not appropriate).

The applicant will be selected based on research interests and qualifications, recommendations, compatibility of background and interests with the other researchers, academic records and a pre-appointment meeting with U.S EPA staff.

Stipend and Length of Appointment: The appointment will be full-time for one-year and may be renewed for up to two additional years upon recommendation of EPA and subject to availability of funds. The annual stipend will range from \$45,000 - \$72,000 commensurate with experience and training. The participant must show proof of health insurance. **The participant does not become an EPA employee.**

The contact person for this project is Michael Wright. He can be contacted at wright.michael@epa.gov.

The Research Participation Program for NCEA is administered by the Oak Ridge Institute for Science and Education. ***Please reference Project # EPA-NCEA 2008-04 when calling or writing for information.*** For additional information and application materials contact: Research Participation Program/EPA-NCEA, Attn: Betty Bowling, Oak Ridge Institute for Science and Education, P.O. Box 117, Oak Ridge, Tennessee 37831-0117, Phone: (865) 576-8503, Fax: (865) 241-5219, e-mail: betty.bowling@ornl.gov.

An application can be found at <http://www.ornl.gov/orise/edu/EPA/app-gugrgpd.pdf>