

**POSTDOCTORAL RESEARCH PROGRAM
NATIONAL EXPOSURE RESEARCH LABORATORY
U.S. ENVIRONMENTAL PROTECTION AGENCY
Research Triangle Park, NC**

Project # NERL-AMD-RTP 2004-02

A research project is available through the Postdoctoral Research Program at the U.S. Environmental Protection Agency (EPA), National Exposure Research Laboratory (NERL) at Research Triangle Park, North Carolina. Under the guidance of a research mentor in the Atmospheric Modeling Division (AMD), the research fellow will participate in the Community Multiscale Air Quality (CMAQ) project.

The Community Multiscale Air quality (CMAQ) model developed by AMD is a regional scale, multi-pollutant model that predicts ozone, aerosol species, and atmospheric deposition. CMAQ is currently being applied for regulatory and forecasting applications by EPA and NOAA. Model performance and diagnostic, process-oriented evaluations are conducted as part of CMAQ model version releases. Standard CMAQ simulations now cover seasonal and annual time spans and typically cover continental domains. Therefore, approaches are needed to assess model performance on a range of temporal and spatial scales to better understand model multi-pollutant behavior and the factors influencing model performance, including model inputs and simulated processes. Observational data available for air quality model evaluation range from surface level concentrations from continuous surface networks to month-long intensive field studies, as well as remotely sensed data from satellites and aircraft. Given the broad range of research opportunities in air quality model evaluation in AMD, a postdoctoral fellow is desired to help explore, develop and apply new approaches for air quality model evaluation considering pollutant interactions, temporal and spatial variations, and connections among physical and chemical variables. The research fellow will participate on a model evaluation team where members have a range of air quality modeling and evaluation expertise.

The applicant should have received a doctoral degree in atmospheric sciences or a related field (physical sciences, engineering, etc.) with substantive experience with chemical transport modeling and standard statistical analysis techniques. S/he should have some familiarity with ambient data from national observational networks for ozone and speciated aerosols. Some experience in scientific/statistical programming is also important.

The appointment is for one year, though it may be renewed upon recommendation of NERL for an additional year. The participant will receive a monthly stipend commensurate with education and prior experience. U.S. citizenship or permanent resident alien status is preferred. The participant must provide proof of medical insurance.

The EPA contact for this project is Dr. Alice Gilliland. Her e-mail is gilliland.alice@epa.gov.

The Internship/Research Participation Program for EPA NERL is administered by the Oak Ridge Institute for Science and Education. *Please reference Project # NERL-AMD-RTP 2004-02 when calling or writing for information.* For additional information and application material contact: Internship/Research Participation Program for EPA NERL, Attn: Betty Bowling, Science and Engineering Education - MS 36, Oak Ridge Institute for Science and Education, P.O. Box 117, Oak Ridge, Tennessee 37831 Phone: (865) 576-8503 Fax: (865) 241-5219 email: bowlingb@ornl.gov

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