

**Research Participation Program
Center for Food Safety and Applied Nutrition
U.S. Food and Drug Administration
College Park, Maryland**

**Study FDA's Exposure Assessment of Anthropogenic
and Natural Chemicals in the Food Supply
Project # FDA CFSAN 2007-16**

A project is available in the Research Participation Program at the Center for Food Safety and Applied Nutrition (CFSAN), U.S. Food and Drug Administration (FDA). The appointee will be assigned to the Office of Food Safety (OFS) in College Park, Maryland.

Description of Project:

The Office of Food Safety is responsible for development of the science base and policy, implementation, and review of proposed regulatory activity for the presence of chemical contaminants, both anthropogenic and nature, in foods.

There is a need for a postdoctoral researcher who can serve as an exposure analyst who can assist in providing estimates of exposure for food borne anthropogenic and natural contaminants in food. The individual would be assigned to the Chemical Hazards Assessment Team (CHAT). Specific tasks might include:

- Assist with the development of monitoring/surveillance programs for industrial chemicals, toxic elements and natural toxins in foods.
- Provide technical information on agency monitoring programs and data on industrial chemicals, process induced toxicants, toxic element and natural toxins in foods.
- Develop new risk assessment methodologies for risk assessments, particularly in the area of exposure and dose-response assessment of industrial chemicals, process induced, toxic elements and natural toxins in foods.
- Provide safety and quantitative risk assessments on industrial chemicals; process induced toxicants, toxic elements and natural toxins in foods.
- Provide toxicological evaluations and risk assessments on a consultative basis for other program offices.

The individual will study and provide exposure assessments of food borne contaminants. The individual will often provide comments on and participates in formulating guidelines for science policy concerning food substances, particularly when it concerns methods of assessment for estimating exposure to food-borne environmental contaminants. He/she may also provide comments in response to request for opinions sent the Agency concerning such dietary exposure assessments. Specific activities of the individual might include:

1. Review and critique exposure assessment provided to the FDA by outside organization (e.g., industry, academia) that present estimates of intake of dietary contaminants with appropriate supervisory controls.

2. Evaluate data submitted on the identity, composition, manufacture, purity, use, intended effect, occurrence level, reactivity of food substance (to determine what chemicals will be in food due to use of the substance) and the levels of these chemicals in food.
3. Review various analytical methodologies submitted in support of the data with respect to accuracy and precision and reaches a scientific judgment on whether the supporting data are sufficient to substantiate the adequacy of the methods. Furthermore, the methods are judged as to whether they support the assessments of food-borne environment contaminants.
4. Estimate probable consumer exposure to food substances and, often, trace contaminants of safety concern, using appropriate exposure assessment methodologies, both deterministic and probabilistic. This includes evaluating information on levels in food and using food consumption databases.
5. Prepare written memorandum setting forth the conclusions regarding the adequacy of all the chemistry data. If the data are deemed to be inadequate, the individual describes in detail the additional data required.

The person may also be trained in studies on food-borne substances and contaminants and in evaluating chemical data and deriving estimates relevant to the food borne contaminant.

The individual will receive training so he/she can

- Collaborate with his/her professional associates, to Agency officials, to authorities in Federal and state capacities, national and international (e.g., World Health Organization) public health organizations and others regarding matters involving the area of exposures to food borne chemical contaminants
- Participate in meetings with industry, academia and government agencies. This includes assembling background information, agenda topic information, preparation of responses for delivery at meetings, and addressing all relevant questions
- Participate in the development of the chemical exposure sections of strategy documents, *Federal Register* documents and scientific guidelines.
- Interact with laboratory personnel evaluating analytical methods to keep abreast of specific scientific developments and other scientific/technical aspects of analytical science pertaining to food substances.
- Maintain and develop professional skills by reading professional journals and attending and present at, as appropriate, scientific meetings, seminars, and training courses.

The fellow will learn how these exposure assessments provide guidance in determining whether administrative actions are necessary. The training involves FDA's regulatory mission and the safety of the nation's food supply.

Requirements:

A doctoral degree received within the past five years is required. The candidate should have a doctoral degree in chemistry or in the biological sciences. Knowledge of food consumption survey and demonstrated abilities in computer analytical software such as Excel or @Risk would be an asset. Prior experience in deriving estimates of dietary exposure for substances is preferred, but not required. In addition, excellent writing and oral communication skills are required since the incumbent will be required to provide their evaluations in the form of written memoranda for the Center's records and will also be responsible for oral communication with colleagues in meetings, seminars, etc., and with visiting stakeholders.

The appointment is for up to one year and may be renewed for another year upon recommendation of CFSAN and subject to availability of funds. The participant will receive an annual stipend of up to \$79,000 depending on background and experience. Limited inbound travel/moving expenses will be reimbursed. Funds are also available for travel to scientific meetings. The participant must show proof of health and medical insurance. The appointment is full time at CFSAN in College Park, Maryland. Participants do not become employees of CFSAN, FDA, or the program administrator and there are no fringe benefits paid.

The Research Participation Program at CFSAN is administered by the Oak Ridge Institute for Science and Education (ORISE). To be considered for this project, send a current résumé via e-mail to Melissa.Goodman@ornl.gov or via fax to (865) 241-5219. **Please reference Project # 2007-16 on all correspondence and on the subject line of your e-mail.** For additional information, contact Ms. Goodman at (865) 241-1294.