Opportunity Title: In Vitro Biomarkers of Toxicity of Botanical Dietary Supplements Fellowship - FDA CFSAN
Opportunity Reference Code: FDA-CFSAN-2016-0154

Organization U.S. Food and Drug Administration (FDA)

Reference Code FDA-CFSAN-2016-0154

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 FDArpp@orau.org. Please include the reference code for this opportunity in your email.

Description A research opportunity in Neurotoxicology & In Vitro Toxicology Branch (NIVTB) in the Division of Applied Regulatory Toxicology (DART) in the Office of Applied Research and Safety Assessment (OARSA) in the Center for Food Safety and Applied Nutrition (CFSAN).

Center for Food Safety and Applied Nutrition (CFSAN) establishes and conducts cohesive mission-relevant research in toxicology and molecular biology that will ensure the safety of the U.S. food supply. In fulfilling this mission, the NIVTB/DART:

- Provides Center and Agency leadership in the areas of in vitro and in vivo safety assessment of possible neuro, cardio, renal, intestinal and liver toxins present in the food supply.
- Recommends, develops, coordinates and conducts research on the toxic effects of substances for which the Center has regulatory responsibilities, and may investigate mechanisms of the underlying toxicological reactions.
- Develops and/or validates various in vitro/ex vivo/in silico systems that may serve as adjuncts to, or replacements for, animal models, and conducts research on the application of in vitro test systems, or batteries of in vitro tests, to assess the toxic effects of substances for which the Center has regulatory responsibilities.
- Conducts toxicological studies on various classes of substances for which the Center has regulatory responsibility to provide data for guideline development and for evaluation of petitions and proposals and for the review of current tolerances and applications.
- Develops long-term research plans, and as appropriate

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leverages with other organizations including other center and agency components.

The participant will be trained on how to:

1. Maintain all functions of a tissue culture laboratory including medium preparation, maintenance of cells in culture, and maintenance of inventory of tissue culture consumables.
2. Conduct experiments using cultured cells (liver, brain, heart, kidney and/or intestinal cells and/or computer based studies)
3. Develop and conduct of biochemical endpoint (biomarkers) assays on cultured cells or rat specimens using techniques including fluorescence, luminescence, LC/MS and ELISA.
4. Collect, process and analysis of tissues from laboratory rodents.
5. Become familiar with the conduct of research in accordance with quality assurance guidelines developed by DART and CFSAN. This includes but is not limited to maintenance of a laboratory notebook with detailed written summaries of experimental methods and results.

The research participant will be trained in the design and conduct of toxicological studies using cells in culture or tissues obtained from laboratory rodents and in the evaluation of toxicological data relevant to the project. The participant will gain an understanding of how such data, when coupled with a review of the scientific literature can be used to design experiments that will be used in the hazard assessment of food-related chemicals. The training involves an understanding of the FDA's regulatory mission and its role in ensuring the safety of the nation's food supply.

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 FDA. The initial appointment is for 12 months, but may be renewed upon recommendation of FDA contingent on the availability of funds. 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 FDA in the Laurel, MD area. Participants do not become employees of FDA, DOE or the program administrator, and there are no employment-related benefits.

Qualifications

Applicants must have received a master's or doctoral degree in chemistry, biology, pharmacology, biochemistry, and/or other appropriate biological sciences within five years of the desired starting date, or completion of all requirements for the degree should be expected prior to the start date. Prior experience in cell culture including working under sterile conditions is recommended.

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Eligibility Requirements

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Master's Degree or Doctoral Degree received within the last 60 month(s).
- **Academic Level(s):** Postdoctoral or Post-Master's.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (4 👁)
  - **Communications and Graphics Design** (1 👁)
  - **Computer, Information, and Data Sciences** (4 👁)
  - **Engineering** (2 👁)
  - **Environmental and Marine Sciences** (2 👁)
  - **Life Health and Medical Sciences** (17 👁)
  - **Mathematics and Statistics** (10 👁)