

**RESEARCH PARTICIPATION PROGRAM
U.S. ARMY MEDICAL RESEARCH INSTITUTE OF CHEMICAL DEFENSE (USAMRICD)
ABERDEEN PROVING GROUND, MARYLAND**

Molecular Toxicology Project at Aberdeen Proving Ground, Maryland

Project #MRICD 09-07

The Research Participation Program for the U.S. Army Medical Research Institute of Chemical Defense (USAMRICD) provides opportunities to participate in USAMRICD on-going applied research and development projects. USAMRICD is the Department of Defense's lead laboratory for the execution of medical chemical defense research. As a subordinate element of the U.S. Army Medical Research and Development Command (USAMRDC), the institute conducts research involving the development, testing, and evaluation of medical counter-measures to the effects of various chemical warfare agents. Project areas include chemical, biochemical, pharmacology, molecular biology, neuroscience, toxicology, and immunology.

An appointment is available at the Cell and Molecular Biology Branch of USAMRICD.

This appointment includes, but is not limited to, the following:

- Utilize genechips and cDNA microarrays to evaluate changes in the gene expression profile of cells or tissues exposed to toxicants of interest.
- Culture cells of primary human skin and corneal cells.
- Utilize protein biochemistry techniques such as polyacrylamide gel electrophoresis (SKS-PAGE), Western Blotting, ELISA, immunoprecipitation, and protein purification to identify changes in cell signaling due to toxicant exposures.
- Pharmacological approaches using small molecule inhibitors to identify toxicant-responsive cell signaling pathways.
- Applying proteomic approaches such as two-dimensional gel electrophoresis (2DE), differential gel electrophoresis (DIGE), and MALDI mass spectrometry to identify potential therapeutic targets for the treatment of exposure to toxicants.
- Utilizing molecular approaches such as RNA interference and reporter gene assays to identify and validate potential therapeutic targets for the development of therapeutics to treat toxicant exposure.

Applicants should have received a **Bachelor's degree in Toxicology** within three years of the desired starting date, or completion of all requirements for the degree should be expected on or about the starting date. Other applicants will be considered on a case-by-case basis. The program is open to all qualified U.S. citizens without regard to race, sex, religion, color, age, physical or mental disability, national origin, or status as a Vietnam era or disabled veteran.

The participants will be selected based on academic records, recommendations, applied research interests and compatibility of background with applied research programs and projects at USAMRICD and/or the host Installation.

The initial appointment is for **one year** and may be renewed for up to two additional years based upon recommendation of USAMRICD and subject to availability of funds. The appointment is **full time** at USAMRICD.

The participant will receive a monthly stipend. The stipend rate is determined based upon level of education, training, and experience. Inbound travel and moving expenses are reimbursed according to established policies. Travel and other costs will also be reimbursed for training related to the project and approved by ORISE and the host installation.

The participant must show proof of health and medical insurance. Health plans are available through the Oak Ridge Institute for Science and Education for Postgraduate Internship participants.

Applications are accepted and processed on a continuing basis. The Research Participation Program for USAMRICD is administered by the Oak Ridge Institute for Science and Education. Please reference **Project #MRICD 09-07** when calling, emailing, or writing for information. For immediate consideration, applicants may forward resumes, or vitas to the email address listed below. Additional information and application materials can be found on the following website www.ornl.gov/Maryland.

ORAU/ORISE

4692 Millennium Drive

Suite 101

Belcamp, MD 21017

Email: Recruiter@ornl.gov

Fax: (410) 306-9306

Web: www.ornl.gov/Maryland