

RESEARCH FELLOW POSITION WITH CDC/NIOSH, MORGANTOWN, WV

OPEN POSITION:

The National Institute for Occupational Safety and Health (NIOSH) at Centers for Disease Control and Prevention (CDC) is pleased to announce a research fellowship opening in the Receptor Biology Laboratory (RBL) in the Toxicology and Molecular Biology Branch (TMBB) within the Health Effects Laboratory Division (HELD), located in Morgantown, WV.

TMBB focuses on molecular and cellular mechanisms of toxicity of highly relevant and emerging occupational agents. Research investigations within TMBB are focused on developing new and sensitive molecular biomarkers for monitoring the toxicity of occupational agents and defining targeted therapy strategies of specific disease states induced by occupational agents by: 1) Developing and applying methods that detect and investigate potential health hazards associated with workplace exposures; 2) Focusing on understanding changes and differences of biological systems at the molecular, cellular, tissue, and organ level; 3) Exploring basic integrative links between various organ systems as they pertain to human health effects of workplace exposures; 4) Working toward providing a scientific basis for the development of strategies for early detection, intervention, and therapy of occupational diseases and applying these strategies to practice in the workplace; and 5) Facilitating the design of studies for the prevention of occupational diseases through the development of new techniques, new biomarkers, and collaborations with scientific and technical staff from within NIOSH and outside organizations.

The Receptor Biology Laboratory, under the direction of Dr. Qiang Ma, studies the molecular and mechanistic events that are involved in the development of occupational diseases, with potential emphasis on pulmonary inflammation, fibrosis, and cancer, which arise as a consequence of exposure to various occupational agents including particulates, nanomaterials, and small chemicals. These studies will provide insight into the mechanisms and pathways that different occupational agents activate to induce specific lesions and host responses, and provide biomarkers of exposure and targets for therapeutic intervention.

DUTIES:

The objective of this position is to study the health effects associated with occupational exposures which result in disease development. Duties of this project will include conducting *in vivo* and *in vitro* studies to characterize molecular and mechanistic events that occur as a result of exposure to occupational agents which cause injury and disease.

The fellow will be responsible for the collection of data using a combination of animal models, cell culture, molecular biology, genetic, and immunologic approaches. It is expected that the selected candidate will present and publish research findings in peer reviewed journals.

QUALIFICATIONS:

The following qualifications are required for this position:

- A Master's degree or Ph.D. degree in molecular biology, biochemistry, immunology, toxicology, pharmacology, cancer research or another related discipline from an accredited university.
- Experience conducting *in vivo* and *in vitro* studies evaluating molecular and mechanistic changes as a result of exposure utilizing techniques such as transgenic animals, protein and DNA techniques, optical, fluorescence, and electronic microscopy imaging methods, cell culture, and small animal handling, treatment, and tissue collection.

- Experience in developing and characterizing rodent models of disease and pathologic phenotypes is desirable.
- Excellent scientific writing ability, strong oral communication skills, and the ability to work effectively and collegially.

The following qualifications are considered highly desirable for this position:

- A strong background in molecular and transgenic approaches relating to disease and pathologic effects.
- A general understanding of and experience in biochemistry, immunology, toxicology, and lung disease.
- A strong publication record.

Salary is dependent upon academic degree and experience.

FACILITIES:

The NIOSH research campus in Morgantown is adjacent to West Virginia University; metropolitan areas in Pittsburgh and Washington DC are within a one and three hour drive, respectively.

<http://www.cdc.gov/niosh/contact/im-held.html>

NIOSH is an Affirmative Action/Equal Opportunity Employer.

APPLICATION:

Interested applicants should send a cover letter explaining relevant work experience and research interests (less than 2 pages), curriculum vitae, and contact details of three referees via email to:

Dr. Qiang Ma

NIOSH

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