Environmental Toxicology Training Program

Interdisciplinary toxicology training at the University of Texas Medical Branch in Galveston, Texas is provided through the collaboration of 25 faculty from seven graduate programs. Clusters of UTMB basic scientists and clinicians with complementary expertise have associated to address Toxicology problems at a fundamental molecular level as well as clinical and public health issues. Please visit our website at: http://www.utmb.edu/etox-tp/ for further information.

Goals of UTMB Toxicologists:
- Understand fundamental biological processes and the mechanisms by which toxic agents adversely affect them
- Characterize the toxic effects of specific chemicals such as pollutants and medications.
- Define human exposures to toxic agents in the environment and identify risk factors for adverse response, notably, gene-environment interactions
- Assess risks for environmental chemicals to ascertain the need for minimizing human exposures
- Investigate roles of toxicants in cellular and molecular pathology

Pre-Doctoral Students who are interested in graduate studies in Toxicology at UTMB can obtain information about the application process at: http://gsbs.utmb.edu/, as all beginning graduate students are admitted into an interdisciplinary curriculum called the Basic Biomedical Sciences Curriculum within our Graduate School of Biomedical Sciences (GSBS). The first year is spent in integrated science course work and laboratory rotations. Afterward, students interested in Toxicology select a graduate program from those shown below, and a mentor for their Toxicology research from our Environmental Toxicology faculty trainers shown on the reverse of this page.

Post-doctoral trainees may contact faculty directly, or the Training Program Director. Support for research activities/experiments during training comes from mentor funds, and the resources listed on the reverse of this page.

UTMB Graduate Programs Associated with Environmental Toxicology Training
- Biochemistry & Molecular Biology
- Microbiology & Immunology
- Population Health Sciences
- Cell Biology
- Neuroscience
- Experimental Pathology
- Pharmacology & Toxicology

Environmental Toxicology Training Program Contact Information:

Director: Bill T. Ameredes, M.S., Ph.D. btamered@utmb.edu
Associate Director: Casey Wright, Ph.D. cawright@utmb.edu
Program Administrator: Tracie Albritton taalbrit@utmb.edu
Coordinator: Nicole Bilotta nabilott@utmb.edu

Additional details regarding the Environmental Toxicology program are available at: http://www.utmb.edu/etox-tp/
UTMB Environmental Toxicology Faculty Research Interests

- Abdel-Rahman, Sherif, Ph.D., Associate Professor. Genetic susceptibility to toxic effects of tobacco smoke toxins and other environmental carcinogens. sabdelra@utmb.edu
- Ameredes, Bill T., Ph.D., Professor and Director ETox T32 Training Program. Mechanisms of functional resolution of allergic airway inflammation and asthma involving IL-10, NO, and beta-receptors; physiologic effects of CO, SO2, and ozone. btamered@utmb.edu
- Ansari, Naseem H., Ph.D., Professor. Role of lipid-derived aldehydes in ocular injury. nansari@utmb.edu
- Ansari, Shakeel, Ph.D., Professor. Lipid and protein adducts of xenobiotics and biomonitoring. sansari@utmb.edu
- Boldogh, Istvan, Ph.D., Professor. Role of oxidative stress in aging and allergic inflammation. sboldogh@utmb.edu
- Boor, Paul J., M.D., Professor. Influences of amines and aging on cardiovascular pathology. pboor@utmb.edu
- Calhoun, William, M.D., Professor. Glucocorticoid receptor dysfunction, cytokines and airway inflammation. wjcalhou@utmb.edu
- Croisant, Sharon A., Ph.D., Associate Professor. Environmental health effects of toxicants on human health. spetrone@utmb.edu
- Dineley, Kelly T., Ph.D., Professor. Mechanisms of functional resolution of allergic airway inflammation and asthma, through molecular and cell-signaling pathways involving IL-10, NO, and beta-receptors. ktdinele@utmb.edu
- Elferink, Cornelis, Ph.D., Professor. Molecular mechanisms of Ah Receptor in toxicity and environmental health risk assessment. coelferi@utmb.edu
- Englander, Ella, Ph.D., Professor. Mechanisms of neurotoxicity of agents in combustion smoke. elenglan@utmb.edu
- Garofalo, Roberto P., M.D., Professor. Innate immunity, oxidative responses and environmental tobacco smoke. rpgarofa@utmb.edu
- Goldblum, Randall M., M.D., Professor. Environmental influences on allergic mucosal inflammation in children. rmgoldbl@utmb.edu
- Khan, M. Firoze, Ph.D., Professor. Oxidative stress and autoimmune disease. mfkhan@utmb.edu
- Laezza, Fernanda, M.D, Ph.D., Associate Professor. Pesticide effects on function of voltage-gated sodium channels felaezza@utmb.edu
- Menon, Ramkumar, Ph.D., Assistant Professor. Environmental pollutants effects on preterm birth. ra2menon@utmb.edu
- Motamedi, Massoud, Ph.D., Professor and Director, Center for Biomedical Engineering. Nanosensor technologies and nanoparticle toxicities affecting organ system form and function. mmotamed@utmb.edu
- Papaconstantinou, John, Ph.D., Professor. Biochemical changes that render aging tissue vulnerable to oxidants. jmpapacon@utmb.edu
- Perez-Polo, J, Regino, Ph.D., Professor. Toxicologic neuropathology of perinatal ischemic incidents in low birth weight infants. jperpezo@utmb.edu
- Prough, Donald S., M.D., Professor and Chairman. Zinc neurotoxicity in traumatic brain injury. dsprough@utmb.edu
- Sowers, Lawrence, Ph.D., Professor and Chair, Dept. Pharmacology and Toxicology. Chemistry and biology of DNA damage due to carcinogens and cancer chemotherapy agents. lasowers@utmb.edu
- Taglialetela, Guilio Ph.D., Professor and Director. Mitchell Center for Neurodegenerative Diseases. Neurotoxicity in the aged and diseased CNS. gtagliial@utmb.edu
- Toliver-Kinsky, Tracy, Ph.D., Associate Professor. Innate immune responses to environmental opportunistic infections in trauma patients. ttoliver@utmb.edu
- Wright, Casey, Ph.D., Associate Professor. Environmental influences on AHR and NF-kB signaling in normal versus autoimmunity. cawright@utmb.edu
- Zhang, Kangling, Ph.D., Assistant Professor. BPA effects on the immune system and AHR function. kazhang@utmb.edu
- Zhang, Wenbo, Ph.D., Associate Professor. Retinal neurotoxicity of toxicants and tau oligomer. we2zhang@utmb.edu

Support for toxicology research at UTMB includes:
- National Institute of Environmental Health Sciences (NIEHS) Center on Environmental Toxicology (CET)
- UTMB Institute for Translational Science (ITS) and the Clinical and Translational Science Award (CTSA)
- Sealy Centers for: Environmental Health and Medicine (SCEHM); Aging; Molecular Medicine; and Structural Biology

Core facilities are available for genomics, proteomics, recombinant DNA technology, protein chemistry, inhalation toxicology, and other research needs.

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