

Core Mentors

Mentor	Expertise
Lauren Aleksunes, Associate Professor, School of Pharmacy	Environmental chemicals and drug transporters in liver, kidney, brain and placenta.
Emily Barrett, Associate Professor, School of Public Health	Impact of early life exposure to environmental chemicals and psychosocial stressors on subsequent health and development. Several ongoing pregnancy cohort studies that focus on the critical role of the prenatal environment in shaping children's growth, neurodevelopment, and reproduction.
Brian Buckley, Executive Director of Laboratories	Develop and improve analytical instrumentation to characterize biologically active molecules and metals in their native matrix with a focus on environmental contaminants and their biomarkers of exposure.
Joanna Burger, Distinguished Professor, School of Arts & Sciences	Investigations of the complex interactions among human health, ecological health and well-being. This includes studies of perceptions of risk and exposure, risk assessments, fish consumption patterns and contaminant levels in fish, biomonitoring, ecological risk, changes in animal populations as a result of human interactions or disturbances, and how to balance human needs with those of wildlife.
Keith Cooper, Professor, School of Environmental and Biological Sciences	Xenobiotic metabolism in aquatic animals. Research to determine the biochemical mechanisms of action to explain the effects of chemicals at the whole organism level.
Nancy Fiedler, Professor, Chair, Deputy Director, School of Public Health	Epidemiologic and controlled exposure studies to assess the effects of environmental and occupational exposures to neurotoxicants on cognition, sensory function, and symptoms. Birth cohort study in Thailand to determine the impact of pesticides on neurodevelopment.
Panos Georgopoulos, Professor, School of Public Health	Simulation and modeling of environmental and biological systems. Mechanistic modeling to simulate environmental and biological processes in a systematic source-to-dose-to-effect framework that links the release and presence of hazardous agents in ambient, occupational and residential environments to associated exposures and biological responses.
Andrew Gow, Professor, School of Pharmacy	Mechanisms of nitric oxide in pathophysiologic conditions such as cardiopulmonary disease.
Howard Kipen, Professor, Director CROM, School of Public Health	Controlled human exposure studies to elucidate mechanisms for the effects of outdoor and indoor air pollution on human health and disease. Clinical evaluation of patients who have had occupational and/or environmental toxic exposures.
Debra Laskin, Distinguished Professor, Chair, School of Pharmacy	Focus on elucidating inflammatory mechanisms underlying pulmonary and hepatic disease pathogenesis induced by exposure to drugs, chemicals and environmental pollutants. Rodent models of exposure and techniques in flow cytometry/cell sorting, molecular biology, and biochemistry used to characterize the phenotype and functioning of inflammatory macrophages.
Jeffrey Laskin, Distinguished Professor, School of Public Health	Discovery of countermeasures to protect against chemical, biologic, radiologic or nuclear attack.
Kenneth Reuhl, Professor, School of Pharmacy	Determine the pathologic and toxicologic effects of heavy metals on brain development. Long-term effects of closed-head injury on the blood brain barrier.

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Mark Robson, Professor, School of Environmental and Biological Sciences	Pesticide exposure in farmers and global health research.
Helmut Zarbl, Professor, Director EOHSI, School of Public Health	Interaction of chemicals, toxicants and stressors (e.g., sleep disruption) with host and environmental factors (e.g., genetics, epigenetic, composition of the microbiome, drugs, diet, lifestyle, co-morbidities, metabolism and natural products) to accelerate aging and increase the risk of cancer and other chronic diseases. Develop mechanistically-based intervention, prevention and treatment strategies to reduce the burden of environmental diseases in at risk individuals and populations.