

UW EDGE Center

Interdisciplinary Center for Exposures,
Diseases, Genomics and Environment



ENVIRONMENTAL
& OCCUPATIONAL
HEALTH SCIENCES
SCHOOL OF PUBLIC HEALTH
UNIVERSITY of WASHINGTON

Pilot Projects, Year 28 (2023-24)

Characterization of volatile organic compounds (VOCs) exposure and related protein adductomic signatures to evaluate a local public health intervention in safer degreasers, [Dr. Diana Ceballos/Dr. Judit Marsillach](#), Co-PIs, DEOHS, School of Public Health

Bioinformatic tools for assessing health risk of antimicrobial resistance within microbiomes, [Dr. Erica Fuhrmeister](#), PI, DEOHS, School of Public Health

A Pilot Study Characterizing Traffic-Related Air Pollution Exposure and Cellular Aging in a Sample of Marginalized Mother-Child Dyads, [Dr. Jonika Hash](#), PI, Child, Family, & Population Nursing, School of Nursing

Application Title: Spokane Extreme Heat Risk Intervention Stakeholder Synthesis Symposium, (SEHRI S3), [Dr. Tania Busch Isaksen](#), PI, DEOHS, School of Public Health

A zebrafish quantitative genetics platform for studying gene-environment interactions, [Dr. Yijie Geng](#), PI, DEOHS, School of Public Health

Pilot Projects, Year 27 (2022-23)

Metagenomic Approach to Decipher Mechanisms of Cadmium Neurotoxicity, [Dr. Julia Cui](#), PI, DEOHS, School of Public Health

Single-Cell Characterization of the Testes-Immune Axis for Improved Hazard Assessment of Chemical Mixtures, [Dr. Elaine Faustman](#), PI, DEOHS, School of Public Health

Studying individual variability in inflammatory gene expression response to wildfire exposures using a self-administered blood sampling device, [Dr. Ashleigh Theberge](#), PI, DEOHS, Department of Chemistry

Elucidate the effects of increased usage of quaternary ammonium compound disinfectants on human microbiome during COVID-19, [Dr. Libin Xu](#), PI, DEOHS, Department of Medical Chemistry

Pilot Projects, Year 26 (2021-22)

Community Engagement to Identify Priorities, Policies, and Scenarios for Modeling

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the Health Benefits of a Just Transition, [Dr. Jeremy Hess](#), PI, DEOHS, School of Public Health

Unraveling Gut Microbiome-Mediated Alterations in Human CYP3A4 Expression and Activity, [Dr. Qingcheng Mao](#), PI, Department of Pharmaceutics

Spatiotemporal Refinement for Environmental Circadian Misalignment, [Dr. Trang VoPham](#), PI, Department of Epidemiology, School of Public Health

Pilot Projects, Year 25 (2020-21)

Characterization of Urban Nano-Particles, [Dr. Elena Austin](#), PI, DEOHS, School of Public Health

Airway Morphology as an Effect Modifier of Diesel Exhaust Inhalation in a Murine Model, [Dr. Robb Glenny](#), PI, Pathology, PI, Division of Pulmonary, Critical Care and Sleep Medicine

Characterizing perinatal neurotoxicant exposures in a dense urban informal settlement in Nairobi: A community-engaged approach to foster new Maternal Child Environmental Health research and interventions in Kenya, [Dr. Catherine Karr](#), PI, DEOHS, School of Public Health

Pilot Projects, Year 24 (2019-20)

Development of a 3D microphysiological model of ochratoxin A-induced nephropathy, [Dr. Ed Kelly](#), PI, Pharmacy

Assessing the effects of common environmental toxicants on monoallelic gene expression in *Caenorhabditis elegans*, [Dr. Alexander Mendenhall](#), PI, Pathology

Partnership to characterize PM2.5 in 5 population centers on the Yakama Nation Reservation and Evaluation of Indoor Air Cleaners, [Dr. Edmund Seto](#), PI, DEOHS

Pilot Projects, Year 23 (2018-19)

Assessing Molecular Responses Associated with Clinical Symptoms from Low-Level Domoic Acid Exposure in Nonhuman Primates, [Dr. Tom Burbacher](#), PI, DEOHS, UW School of Public Health

A high throughput pre-RNA sequencing pipeline to decipher the microbiome-toxicant relationship, [Dr. Julia Cui](#), PI, DEOHS, UW School of Public Health

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Using a novel 3d intestinal tissue culture system to understand impacts of cadmium modulation of host glutathione response on enteric viral infection, [Dr. Scott Meschke](#), PI, DEOHS, UW School of Public Health

Pilot Projects, Year 22 (2017-18)

Pilot studies of the effects of dietary factors on the colon epigenome using human "miniguts," [Dr. William Grady & Chris Kemp](#), PI, Fred Hutchinson Cancer Research Center

Conserved SUMOylation pathways in heavy metal exposure, [Dr. Dana Miller](#), PI, Dept. of Biochemistry

High-throughput organotypic brain slice platform for evaluation of quantum dots toxicity and cellular localization, [Dr. Elizabeth Nance](#), PI, UW School of Chemical Engineering

Multi-method characterization of exposure to α -dicarbonyls and markers of acute response, [Dr. Mike Yost](#), PI, DEOHS, UW School of Public Health