Pilot Projects, Year 16 (2011-12)

**Random Mutations in Breast Cancer Stem Cells** • **Dr. Eun Hyun Ahn**, PI, Department of Pathology, UW School of Medicine.

**Diesel Particulate-Induced Cardiac Histone Acetylation and Heart Failure** • **Dr. Michael T. Chin**, PI, Cardiology Division, UW School of Medicine • Co-investigators: Theo Bammler, DEOHS, UW School of Public Health; Richard Byer, DEOHS, UW School of Public Health; Frederico Farin, DEOHS, UW School of Public Health

**Statistical Methods for Gene-Environment Interaction in the Presence of Measurement Error** • **Dr. Chongzhi Di**, PI, Fred Hutchinson Cancer Research Center • Co-Investigator Ulrike Peters, Department of Epidemiology, UW School of Public Health

**A Pilot Health Study of Airborne Calcium Carbonate Nanoparticle Exposure** • **Dr. Michael Yost**, PI, DEOHS, UW School of Public Health • Co-Investigator Sverre Vedal, DEOHS, UW School of Public Health

Pilot Projects, Year 17 (2012-13)

**Parkinsonism and Methylation of Manganese Neurotoxicity Genes in Welders** • **Dr. Harvey Checkoway**, PI, DEOHS, UW School of Public Health • Co-Investigators: Frederico Farin, DEOHS, UW School of Public Health; Brad Racette, Division of Adult Neurology, Washington University; Susan Searles Nielsen, UW School of Public Health

**Maternal heavy metal exposure, DNA methylation, and fetal growth** • **Dr. Daniel Enquobahrie**, PI, Department of Epidemiology, UW School of Public Health • Co-Investigators: David Siscovick, Department of Epidemiology, UW School of Public Health; Frederico Farin, DEOHS, UW School of Public Health; John Stamatoyannopoulos, Department of Genome Sciences, UW; Michelle Williams, Department of Epidemiology, UW School of Public Health

**Effect of NAT Genotype on urinary nitropyrene excretion profile and clearance** • **Dr. Chris Simpson**, PI, DEOHS, UW School of Public Health • Co-Investigators: Penelope JE Quintana, Division of Environmental Health, San Diego State University; Joel Kaufman, DEOHS, UW School of Public Health

**Expression profiling of hepatic enzymes and transporters in human hepatocytes treated with pregnancy-related hormones; implications for the exposure of pregnant women to environmental chemicals** • **Dr. Jashvant Unadkat**, PI, UW School of Pharmacy • Co-Investigator: Theo Bammler, DEOHS, UW School of Public Health

**The role of PBDE in non-alcoholic steatohepatitis-related liver cancer** • **Dr. Raymond Yeung**, PI, UW School of Medicine • Co-Investigator: David Marcinek, Department of Radiology, UW School of Medicine
Pilot Projects, Year 18 (2013-14)

Polycyclic Aromatic Hydrocarbon Exposure from Urban Air Pollution, Herpes Virus Infection and Immune Function in Ugandan Children • Dr. Parveen Bhatti, PI, Research Assistant Professor, UW School of Public Health and Fred Hutchinson Cancer Center

In Utero Diesel Exposure, Epigenetic Changes and Heart Failure • Dr. Michael T. Chin, PI, Cardiology Division, UW School of Medicine

Family Issues Project • Dr. Karen Edwards, PI, UW School of Public Health

Role of Paraoxonase 2 in Modulating Gender-based Susceptibility to Manganese Neurotoxicity in a Mouse Model • Dr. Clement Furlong, PI, UW School of Medicine, Medical Genetics

Inflammatory Pathways of Agricultural Contaminants on Childhood Asthma • Dr. Catherine Karr, PI, DEOHS, UW School of Public Health • Co-Investigators: Christine Loftus, Department of Epidemiology, UW School of Public Health; Michael Yost, DEOHS, UW School of Public Health

Characterization of a New Human Liver Thiol Methyl Transferase • Dr. Rheem Totah, UW School of Pharmacy

Pilot Projects, Year 19 (2014-15)

Development and Application of Transgenic Zebrafish for Investigating Metal-induced Loss of Olfactory Function • Dr. Evan Gallagher, PI, DEOHS, UW School of Public Health

Investigating Mechanisms and Markers of the Vascular Response to Diesel Exhaust in Humans • Dr. Joel Kaufman, PI, DEOHS, UW School of Public Health

Pilot Study of the Association between Phthalate Exposure and Cardiovascular Health Outcomes in an American Indian Population • Dr. Ellen Schur, PI, UW School of Medicine

Metabolomics Signals for Manganese Exposure Among Welders • Dr. Noah Seixas, PI, DEOHS, UW School of Public Health
Pilot Projects, Year 20 (2015-16)

Effect of ultraviolet light on normal and lupus prone skin • Dr. Keith Elkon, PI, UW School of Medicine, Immunology

Traffic-Related Air Pollution, Perinatal Outcomes, and Underlying Genetic and Epigenetic Mechanisms • Dr. Daniel Enquobahrie, PI, UW School of Public Health, Department of Epidemiology

Analysis of Ambient Particulate Matter Deposits in Airway Macrophages of Individuals with Cystic Fibrosis • Dr. Christopher Goss, PI, UW School of Medicine, Division of Pulmonary/Critical Care

Pilot Projects, Year 21 (2016-17)

Traffic related air pollution and neurodegerative disorders: gene-environment interactions • Dr. Lucio Costa, PI, DEOHS, UW School of Public Health

Pilot Studies for Development of "Human Placenta-on-a-Chip" • Dr. Qingcheng Mao, PI, UW School of Pharmacy

Metabolism and transport of quaternary ammonium compounds • Dr. Libin Xu, PI, UW School of Pharmacy

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
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

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