

Center for Environmental Genetics | Pilot Awards 2012 – 2020

Year	Category	PI	Dept	Title
2020	New to EHS	Francis X. McCormack, MD	IM Pulmonary	Osteoclast-like Cells in the Pathogenesis of Pulmonary Fibrosis
2020	New Investigator	Kelly Brunst, PhD	DEPHS Epi	Fluoride exposure, mitochondrial function and mental health
2020	Affinity	Jagjit S. Yadav, PD	DEPHS Tox	Nanoparticle x Gene Interactions Governing Lung Infection Susceptibility
2020	Affinity	Tesfaye Mersha, PhD	CCHMC Allergy	Genomics and geospatial analyses of racial disparities in childhood asthma
2020	Affinity	Zalfa Abdel-Malek, PhD	Dermatology	A Novel Photoprotective Role of MC1R: Reduction of Solar UV-Induced Oxidative DNA Damage
2020	Innovator	Chia-I Ko, PhD	DEPHS Tox	Disruption of pluripotency and differentiation of preimplantation embryonic cells by dioxin exposure
2019	New to EHS	Senu Apewokin, PhD	Intrnl Med	Association between PFOA Exposure and Humoral Responses to Pneumococcal Vaccines
2019	New to EHS	Balasubrahmanyam Addepalli, PhD	Chem	UVR-induced tRNA modifications in melanoma: Role in tumor progression and metastasis?
2019	New Investigator Awardee	Katherine Burns, PhD	EGMT	Chronic DEHP exposure increases incidence of endometriosis
2019	Innovator	Ying Xia, PhD	Tox	Gene-Environment Interactions in Female Reproductive Tract Development
2019	Innovator	KyoungHyun Kim, PhD	DEH	A role of environmental toxicant induced lncRNA in pancreatic disease and cancer
2019	Innovator	Pheruza Tarapore, PhD	DEH	An in vitro model to mimic spermatogenesis and spermiogenesis
2019	Innovator	Neville Tam, PhD	EGMT	Arsenic-induced disruption of sperm RNA N6-methyladenosine modifications and sperm quality
2019	Affinity	Jagjit Yadav, PhD	Tox	Role of Gut-Lung Axis in pulmonary immunotoxicity of nanomaterials
2018	Affinity	Aimin Chen, MD, PhD	DEH	Maternal exposure to emerging endocrine disrupting chemicals (EDCs) in relation to pregnancy outcomes and epigenetic changes in placenta and cord blood mononuclear cells
2018	Affinity	Shuk-Mei Ho, PhD	DEH	Exposure to bisphenol A analogues and its epigenetic effects on human sperm

2018	Affinity	Jagjit Yadav, PhD	DEH Tox	Develop a 3D- ALI Coculture model for investigating predictive and cell type-specific lung toxicity of nanomaterials
2018	Affinity	Shouxiong Huang, PhD	DEH	Single cell transcriptomics to reveal cellular and molecular targets of PPAR γ regulation in PAH-exposed placenta
2018	Affinity	Maria Czyzyk-Krzeska, PhD	Cancer & Cell Biol	Role of heavy metals speciation in clear cell renal cell carcinoma (ccRcc)
2018	Innovator	Yuet-Kin (Ricky) Leung, PhD	DEH	Bisphenol AF induces benign prostatic hyperplasia
2018	Innovator	Kyoungyun Kim, PhD	DEH	A role of nuclear receptor NR2E3 in chemical carcinogen-induced mammary tumorigenesis
2018	Innovator	Bin Ouyang, MD	DEH	Phthalate exposure and DNA methylation in firefighters
2018	NIA	Kelly Brunst, PhD	DEH	Epigenetic mechanisms linking traffic-related air pollution and brain structure and function
2018	NIA	Katherine Burns, PhD	DEH	The role of DEHP signaling through IL6 in the initiation of endometriosis
2018	Shovel Ready	Zalfa Abdel-Malek, PhD	Derm	Efficacy of small alpha-MSH analogs in inhibiting oxidative stress in melanocytes to reduce UV-induced genotoxicity
2018	Shovel Ready	Kim M. Cecil, PhD	CCHMC Rad	Adolescent Brain GABA Concentrations in the HOME Study
2018	Shovel Ready	Dionysios Dionysiou, PhD	Chem & Env Eng ChEE	Catalytic degradation for detoxication of Per-/Poly-fluoroalkyl Substances (PFAS) in wastewater effluents for water treatment applications
2018	Shovel Ready	Chunying Du, PhD	Cancer & Cell Biol	Interaction of DNA repair genes with environmental genotoxin via ubiquitin signaling in liver cancer
2018	Shovel Ready	Jurate Virkutyte, PhD	DEH IH	Effect of ventilation mode on spatial and temporal distribution of bioaerosols during selected everyday activities
2018	Shovel Ready	Ann Vuong, PhD	DEH	Investigating the association between prenatal PAH exposure and DNA methylation, inflammation, angiogenesis, and oxidative stress using placental samples and CBMCs
2018	Shovel Ready	Ying Xia, PhD	Tox	Gene-environment interactions in epithelial morphogenesis

2018	Shovel Ready	Bingfan Yan, PhD	Pharm	Organophosphorus and Pyrethroid Insecticides Metabolic Interactions, Molecular Toxicology, and Critical Determinants by Carboxylesterases
2018	Shovel Ready	Peng Zhang, PhD	CEAS Chem	Quantitative detection of polycyclic aromatic hydrocarbons in soil by SERS
2017	Innovator	Kyoungyun Kim, PhD	DEH	Dysregulation of protective long non-coding RNA in liver toxicity
2017	Mentee-Mentor	Ana Cheong, PhD	DEH	Acute lead exposure and risk of neurodegenerative diseases in male mice
2017	Affinity	Shouxiong Huang, PhD	DEH	Exposure to polycyclic aromatic hydrocarbons alters inflammatory gene expression in placenta
2017	Affinity	Hong Ji, PhD	CCHMC Asthma	TET1 and 5hmC regulate airway epithelial responses to air pollution and allergen
2017	Affinity	Zalfa Abdel-Malek, PhD	Derma	p16 mutations increase melanoma risk by altering the melanocyte microenvironment
2017	Affinity	Jagjit Yadav, PhD	Tox	PAH exposure modulates lung microbiome-immune cell interactions via exosomal miRNAome
2016	Mentee Mentor	Sukanta Bhattacharya, PhD	EGMT	Metallic Nanoparticles Interactions with Xenobiotic-metabolizing P450 Genes via Modulation of Microbiome in Mice
2016	Mentee Mentor	Harish Chandra, PhD	EGMT	Role of PAH exposure in AhR-mediated host immune defense
2016	Affinity Group	Ana Cheong, PhD	DEH	Bisphenol A alters embryo methylome to select for the survival of the neurological disease traits
2016	Affinity	Ranjan Deka, PhD	DEH	PFAS Exposures, Genomics and Metabolic Syndrome in an Island Population
2016	Affinity Group and Community	Erin Haynes, DrPH	DEH	Engaging Rural Ohio Residents in Unconventional Natural Gas Extraction Waste Injection Research
2016	Affinity	Scott Langevin, PhD	DEH	Fiber count and mutational landscape of laryngeal squamous cell carcinoma from patients with a history of occupational asbestos exposure
2016	Innovator	Tesfaye Mersha, PhD	CCHMC Asthma research	Interactions between genetic ancestry and environmental risk factors in asthma
2015	Innovator	Ian Lewkowich	CCHMC Immunol	Prenatal HDM exposure and offspring asthma severity
2015	Innovator	Daniel Prows	CCHMC Human Genetics	Multigene-environment interactions lead to dilated cardiomyopathy and death
2015	Affinity	Jagjit Yadav	Tox	Role of oral microbiome as a modifier in PAH exposure-linked head and neck squamous cell carcinoma (HNSCC)

2015	Affinity	Bin Ouyang	DEH	Exosomal miRNA as biomarkers for exposure and reproductive health in female firefighters
2015	Affinity	Ricky Leung, PhD Ana Cheong, PhD	DEH	Environmental agents alter cell fate specification to cause early embryo loss
2015	Mentee Mentor	Vinothini Janakiram 2014 and 2013 NIS	DEH	Development modulation of early life methylation marks L Modeling the effect of in utero bisphenols S (BPS) exposure
2015	Mentee Mentor	Ann Vuong	DEH	Prenatal PBDE exposure and infant cord blood DNA methylation in the HOME study
2015	Mentee Mentor	Harish Chandra	Tox	Immuno-modulatory Effects of PAH Exposure on Human Immune Cells and Role of CYP1A1-mediated Bioactivation
2015	New to EHS	Mike Fisher, PhD	DEH	QoL amid unconventional natural gas drilling: Community indicators and experience
2015	New to EHS	Heather Norton, Balasubrahmanyam Addepalli	Chem	MC1R genotype and genotype at SNPs in selection candidate genes affecting pseudouridylation and methylation
2014	Affinity	Zalfa Abdel Malek, PhD	Oncology Derma-tology	A Targeted Prevention Strategy for UV-Induced Melanoma in High Risk Individuals
2014	Innovator	Yuet-Kin Leung	DEH	Maternal oral exposure to bisphenol-A impairs embryo implantation through disruption of epigenome in the trophectoderm
2014	Innovator	Jagjit Yadav	DEH	Pulmonary toxicogenomic interactions during nanoparticle exposure using effector cell-specific approach
2014	Community	Susan Pinney	DEH	Extreme personal exposure biomarker levels: Engaging community physicians and ethicists for guidance
2014	Innovator	Shelley Ehrlich, MD, ScD, MPH	CCHMC Biostats Epi	Bisphenol A (BPA) microRNA and Gestational Diabetes Mellitus (GDM)
2014	Mentee-Mentor	Pheruza Tarapore, PhD	DEH	Reprogramming of lncRNA in prostate cancer cells by bisphenol A and its analogues
2014	Mentee-Mentor	Kyoungyun Kim	DEH	A novel epigenetic role of NR2E3, an orphan nuclear receptor, in gene-environmental interaction
2014	New to EHS	Susan Kasper	DEH	Exposure to flame retardants and prostate cancer
2014	Non Biomedical	Vesselin N. Shanov, PhD	CEAS	Carbon nanotube coaxial fiber electrode for toxicant ion detection
2014	Non Biomedical	Mark J. Schulz, PhD, PE	CEAS	Carbon nanotube filter for environmental toxicant removal from Superfund sites
2014	Non Biomedical	Mingming Lu, PhD	CEAS	Beneficial reuse of chlorinated aromatics with thermal hydro-dechlorination
2014	Non Biomedical	Ian Papautsky, PhD	CEAS Elec Eng Chem	Sensor for Rapid, On-Site Determination of Arsenic

2014	Non Biomedical	Jagjit S. Yadav, PhD	DEH	Bioremediation of PAH Mixtures Using a Novel Biphasic Mechanism
2014	Non Biomedical	Peng Zhang, PhD	CEAS	Detection of mercuric ions and methyl mercury in environmental water
2013	Innovator	Hong-Sheng Wang	Pharmacology	HRC genetic variant and cardiac susceptibility to the pro-arrhythmic impact of BPA
2013	Affinity	Jarek Meller & Scott Belcher	DEH	Structure-Activity Models for Assessment of Endocrine Disruptors in Flame Retardants
2013	Community Engagement Research	Melinda Butsch-Kovacic	CCHMC	SHS & DNA methylation in asthmatic & non-asthmatic children living in Cincinnati's West End
2013	Innovator	Ying Xia	DEH	Gene-environmental Interactions in Cranial Facial Development
2013	Mentee-Mentor	Pheruza Tarapore	DEH	Reprogramming of DNA methylome in the testis by high fat diet and bisphenol A
2013	Affinity	Shuk-Mei Ho	DEH	Uranium exposure and epigenetics of prostate cancer: Hypermethylation of known Pr Ca marker genes GSTP1; APB, DAPL, EDCH1, MGMT, RASSF1a, TIMP3; and RARb2
2012	Affinity	Hong Ji, PhD	CCHMC	Epigenetic influences of DEP in asthmatic children and their unaffected siblings
2012	Affinity	Alexey Porollo	CCHMC EGMT	Functional Characterization of Genetic Polymorphisms of Human P450 CYP1A1
2012	Affinity	Laura Woollett		Effects of PFOA on the Epigenome and Developmental Programming
2012	Innovator	Ricky Leung	DEH	Reprogramming of DNA Methylome and Hydroxymethylome by BPA
2012	New to EHS	Weiguo Chen	DEH	Epigenetic regulation of DDAH expression in asthma
2012	Innovator	Bin Ouyang	DEH	Discovery of epigenetic biomarker for assessment of the risk of male reproductive dysfunction in firefighters
2012	Mentee-Mentor	Eileen Alexander	CCHMC	Do Early Environmental Factors and DNA Methylation Patterns Affect the Concordance of Eosinophilic Esophagitis in Twins