Kelsi Perttula, PhD
kelsi.perttula@csueastbay.edu

Education

UC Berkeley; School of Public Health — **Berkeley, CA**
Ph.D., Environmental Health Sciences — December 2017

San Jose State University — **San Jose, CA**
M.S., Chemistry — May 2011

UC Berkeley; College of Chemistry — **Berkeley, CA**
B.S., Chemistry — May 2003

Teaching Experience

Assistant Professor — **California State University East Bay**
Department of Public Health — August 2022 - Present

Lecturer — **California State University East Bay**
Department of Health Sciences — January 2020 - May 2022

Lecturer — **California State University East Bay**
Department of Chemistry and Biochemistry — 2018 - May 2022

Research & Laboratory Experience

Research Affiliate — **UC Berkeley**
Berkeley Exposure Assessment Research (BEAR) Lab — July 2021 - Present

Visiting Scholar — **UC Berkeley**
Department of Environmental Health Sciences — July 2019 - July 2021

Graduate Student Researcher — **UC Berkeley**
Department of Environmental Health Sciences — 2012 - 2017

Forensic Scientist — **San Mateo County Sheriff's Office**
SMCSO Forensic Laboratory — 2005 - 2012

Publications

§ Petrick, L; Imani, P; **Perttula**, K; Yano, Y; Whitehead, T; Metayer, C; Rappaport, S. Untargeted metabolomics of newborn dried blood spots reveals sex-specific associations with pediatric acute myeloid leukemia. Leukemia Research, 106585, 2021.

§ Schiffman, C; Petrick, L; **Perttula, Kelsi**; Yano, Y; Carlsson, H; Whitehead, T; Metayer, C; Hayes, J; Edmands, WMB; Rappaport, S; Dudoit, S; Filtering procedures for untargeted LC-MS metabolomics data, BMC Bioinformatics, 20 (1), 2019.

§ Petrick, L; Schiffman, C; Edmands, WMB; Yano, Y; **Perttula, K**; Whitehead, T; Metayer, C; Wheelock, CE; Arora, M; Grigoryan, H; Carlsson, H; Dudoit, S; Rappaport, SM, Metabolomics of neonatal blood spots reveal distinct phenotypes of pediatric acute lymphoblastic leukemia and potential effects of early-life nutrition, Cancer Letters, 452, 2019.

§ **Perttula, K**; Schiffman, C; Edmands, WMB; Petrick, L; Grigoryan, H; Cai, X; Gunter, MJ; Naccarati, A; Polidoro, S; Dudoit, S; Rappaport, S; Untargeted lipidomic features associated with colorectal cancer in a prospective cohort, BMC cancer, 18 (1), 2018.

§ Petrick, L; Edmands, WMB; Schiffman, C; Grigoryan, H; **Perttula, K**; Yano, Y; Dudoit, S; Whitehead, T; Metayer, C; Rappaport, S; An untargeted metabolomics method for archived newborn dried blood spots in epidemiologic studies, Metabolomics, 13 (3), 27, 2017.

§ **Perttula, K**; Edmands, WMB; Grigoryan, H; Cai, X; Iavarone, AT; Gunter, MJ; Naccarati, A; Polidoro, S; Hubbard, A; Vineis, P; Evaluating ultra-long-chain fatty acids as biomarkers of colorectal Cancer risk, Cancer Epidemiology and Prevention Biomarkers, 25 (8) 2016.

§ Cai, X; **Perttula, K**; Pajouh, SK; Hubbard, A; Nomura, DK; Rappaport, SM; Untargeted lipidomic profiling of human plasma reveals differences due to race, gender and smoking status, Metabolomics, 4 (1), 2014.

Professional Interests

Molecular epidemiology studies using metabolomics in prospective cohorts to differentiate causal and reactive disease molecules.

Collecting and analyzing data from mass spectrometry (MS^n) platforms (micro and nanofluidic LC, GC, Headspace GC) to study impacts by chemicals of interest on health, including:

Statistical analysis of high dimensional molecular epidemiological data using statistical programming languages.

Data mining multiple -OMICS data sets from the same sample sets to discover interactions between metabolomic, genomic, and adductomic data sets.

Teaching and mentoring undergraduate and graduate students in chemistry, toxicology, environmental health, biostatistics, epidemiology, and health effects of climate change.