

Kelsi Perttula, PhD

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Education

UC Berkeley; School of Public Health

Ph.D., Environmental Health Sciences

Berkeley, CA

December 2017

San Jose State University

M.S., Chemistry

San Jose, CA

May 2011

UC Berkeley; College of Chemistry

B.S., Chemistry

Berkeley, CA

May 2003

Research & Laboratory Experience

Assistant Professor

Department of Public Health

California State University East Bay

August 2022 - Present

- Research interests include molecular epidemiology, environmental chemical exposures, health impacts to wildfire smoke, and barriers to community-level climate change adaptive measures.
- Lead undergraduate students in research projects.
- Advise and mentor students on degree progress and career interests.

Visiting Scholar

Department of Environmental Health Sciences

UC Berkeley

July 2019 - July 2021

- Analyzed indoor/outdoor particulate matter and carbon-related air quality data.
- Measured the distribution of respirable particles within elevators.
- Mentor and collaborate with graduate students. Affiliate status presently retained

Graduate Student Researcher

Department of Environmental Health Sciences

UC Berkeley

2012 - 2017

- Executed LC-MS metabolomic studies in the Rappaport Lab.
- Analyzed high-dimensional LCMS data with data-adaptive variable selection methods.

Forensic Scientist

SMCSO Forensic Laboratory

San Mateo County Sheriff's Office

2005 - 2012

- Examined and analyzed biological, fiber, blood toxicology, and trace evidence. Examined crime scenes. Qualified expert witness in San Mateo, Solano, and Alameda county courts.

Teaching Experience

Assistant Professor

Department of Public Health

California State University East Bay

August 2022 - Present

- First Year Seminar (PH 100), Environmental Health (PH 300)
Epidemiology (PH 330), Public Health (315)

Lecturer

Departments of Chemistry and Health Sc/Public Health

California State University East Bay

2018 - 2022

- Chemistry and Society (Chem 106), General Chemistry (Chem 1103), General Chemistry Laboratory (Chem 112), Bioanalytical and Forensic Instrumentation, Laboratory and Lecture (Chem 320).
- Investigating Disease Outbreaks & Epidemics (HSC 270), Environmental Health (HSC 300), Environmental Health Policy (HSC 362), Epidemiology Lecture (HSC 330)

Graduate Student Instructor

School of Public Health

UC Berkeley

January 2017 - July 2017

- Advised undergraduate honor students with their theses. Co-taught Introduction to Environmental Health Sciences.

Lecturer

Department of Life Sciences

Notre Dame de Namur University

2010 - 2012

- Taught organic and general chemistry labs. Developed and taught environmental toxicology. Mentored and advised undergraduates.

Publications

- § Kado, M; **Perttula, K**; Noth, EM; Moore, D, Nguyen, P; Perrino, C; Nicas, M; Hammond, SK; "Elevator Ventilation and SARS-CoV-2-Relevant Particulate Matter Removal in Three Older California Elevators", Indoor Air, vol. 2023, Article ID 7664472, 10 pages, 2023.
- § 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, K**; 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.

Poster Presentations

Perttula, K; Lopez, MJ; Noth, EM; Lurmann, F; Hammond, SK; The effect of outdoor air quality and in-home activities on residential indoor air quality. Poster presented at the Exposome Symposium; Brescia, Italy; April 2023.

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; Poster presented at the Metabolomics Society Conference; San Francisco, CA; June 2015.

University Service

Committee on Sustainability (CS)

Member

CSUEB Senate

September 2024 - Present

Committee on Student Affairs

Member

CSUEB Dept. of Public Health

September 2024 - Present

Committee on Curriculum

Member

CSUEB Dept. of Public Health

September 2022 - Present

Committee on Equity

Member

CSUEB Dept. of Public Health

September 2021 - May 202

Community Service

CALICO Center

San Leandro, California

Child Advocacy Center

January 2021 - Present

- Member of the Board of Directors; Treasurer - September 2023 - Present
- Support and advise as a board member for CALICO, the Child Abuse Listening, Interviewing and Coordination Center, a Child Advocacy Center of California (CACC).
- Assist in the interpretation and implementation of local, state, and federal health guidelines, to support staff, children, and clients during the COVID-19 pandemic.

American Red Cross

Oakland, California

October 2021 - Present

- Blood Program Leader: coordinate and advertise biannual blood drives with the Red Cross.
- Average donation of 25 blood products per drive.

Awards and Fellowships

Distinguished Center for Health Equity (CHER) Institute Faculty Fellow, June 2025.

RSCA Support Mini Grant Pilot (RSG-Mini), 2024-2025.

Online Course Quality Transformation Grant; Quality Matters Certification; CSUEB, 2019.

UC Berkeley School of Public Health Alumni Scholarship; 2013.

Environmental Health Sciences Block Grant Recipient, UC Berkeley; 2012.

Professional Organizations

Member, American Public Health Association

Member, International Society for Environmental Epidemiology