

KAI ZHANG, PH.D.

EDUCATION

UNIVERSITY OF MICHIGAN, ANN ARBOR

Research Fellow, Departments of Environmental Health Sciences and Epidemiology

2012

UNIVERSITY OF MICHIGAN, ANN ARBOR

Ph.D., Department of Environmental Health Sciences

2010

M.A., Department of Statistics

2009

TSINGHUA UNIVERSITY, Beijing, China

M.S., Department of Environmental Science and Engineering

2002

SOUTHEAST UNIVERSITY, Nanjing, China

B.S. with honors, Department of Environmental Engineering; minor in Accounting

1998

EDUCATIONAL EMPLOYMENT

THE UNIVERSITY OF NORTH TEXAS HEALTH SCIENCE CENTER AT FORT WORTH

Department of Population and Community Health, College of Public Health

Professor

2025 – present

UNIVERSITY AT ALBANY, STATE UNIVERSITY OF NEW YORK

Dept. of Environmental Health Sciences

Empire Innovation Associate Professor

2021 – 2024

UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON

Dept. of Epidemiology, Human Genetics and Environmental Sciences

Associate Professor

2020

Assistant Professor

2012 – 2020

Assistant Professor (secondary appointment), Dept. of Biostatistics and Data Science

2015 – 2020

GRANT FUNDING

Active Research Support:

NIH/NIA R01AG081244

Hou, **Zhang**, and Liu (MPIs)

2022-2026

Epigenomic landscape of individual- and neighborhood-level social disadvantages and cardiovascular health disparity

Role: MPI

NIH U01AG088658

Chen, Hou, Yaffe and Jones (MPIs)

2024-2029

Early mid-life environmental toxicant exposures and AD/ADRD risk in CARDIA

Role: Subcontract PI

NIA-funded Aging Center Pilot grant

Sun and **Zhang** (MPIs)

2024-2025

Temperature and Chronic Pain among Older Adults: Evidence from the Health Retirement Study

Role: MPI

Completed Research Support: Federal

SUNY Empire Innovation Award **Zhang** (PI) 2021-2024
Role: PI

AHA 19TPA34830085 **Zhang** (PI) 2019-2024
Urban Exposome and Cardiovascular Health in the CARDIA Longitudinal Study
Role: PI

NIOSH T42OH008421 Gimeno (PI) 2020-2025
Southwest Center for Occupational and Environmental Health
Role: Director of Pilot Projects Research Training Program (PPRTP) (7/2020 – 12/2020)

CDC/NIOSH-1R03OH011195-01 **Zhang** (PI) 2016-2020
Assessing Heat-Related Morbidity among Migrant and Seasonal Farmworkers
Role: PI

NIOSH T42OH008421 Symanski/Gimeno (PI) 2015-2020
Southwest Center for Occupational and Environmental Health
Role: Co-I and Pilot Projects Research Training Program (PPRTP) Associate Director

Completed Research Support: Foundations and Other External Sponsors

UAlbany Huang, Li, and **Zhang** (MPIs) 2021-2022
(Note: The President's COVID-19 and Minority Health Disparities Seed Funding Program)
Role: MPI

Environmental Defense Fund **Zhang** (PI) 2018-2021
Developing Land Use Regression Models for Fine Particulate Matter in Greater Houston
Role: PI

CPRIT PP190061 Savas (PI) 2019-2022
Salud en Mis Manos: Delivering Evidence-Based Breast & Cervical Cancer Prevention Services to Latinas in Underserved Texas South and Gulf Coast Communities (PP190061)
Role: Co-I

NIOSH-SWAG **Zhang** (PI) 2015-2016
Heat and Health: Developing Vulnerability Indicators for Agricultural Workers along Texas-Mexico Border
Role: PI

NIOSH-SWCOEH **Zhang** (PI) 2014-2015
Climate change, heat and health: Developing vulnerability indicators for farmworkers in California as a prototype for Texas
Role: PI

UTSPH-PRIME Award **Zhang** (PI) 2015-2016
Impact of the 2011 Heat Wave on Health Care Costs in Greater Houston
Role: PI

Environmental Defense Fund **Zhang** (PI) 2015

Assessing Exposures due to Traffic-related Pollutants in the Port Houston Area

Role: PI

Texas Dept. of Transportation

Qiao and **Zhang** (MPIs)

2014 - 2015

Buffer Zones/Infill Development – Environmental and Public Health Effects of Traffic Congestion and Increased Vehicle Emissions Triggered by Infill Development

Role: MPI

PEER-REVIEWED PUBLICATIONS (*, corresponding author; __, mentored students or postdoc)

166. Gong Y, Haeri M, Zhang X, et al. 2025. Stereo-seq of the prefrontal cortex in aging and Alzheimer's disease. **Nature Communication** 16(1): 482.

165. Liu H, Lei J, Liu Y, et al. 2025. Hospital admissions attributable to reduced air pollution due to clean-air policies in China. **Nature Medicine**. <https://doi.org/10.1038/s41591-025-03515-y>

164. **Zhang K***, Dang Y, Li Y, Tao C, Hur J and He Y. 2024. Impact of climate change on vaccine responses and inequity. **Nature Climate Change** 14: 1216–1218.

163. Kim K, Yao J, Jacobs DR, Martin RV, van Donkelaar A, Su WC, Zhang C, Chen X, Murthy VL, Zhang X, Lloyd-Jones D, Hou L, **Zhang K***. 2024. Associations of exposure to PM2.5 and its compounds with carotid intima-media thickness among middle-aged adults. **Science of The Total Environment** 955: 177098.

162. Han S, Hu M, Gao X, Huang Y, Guo F, Shen GC, Wang D, Lin S, **Zhang K***. 2024. Energy burden and mental health: A national study in the United States **Science of The Total Environment** 2024 955:176796.

161. Joyce BT, Yao J, Zheng Y, Gao T, Nannini S, Lin S, Li X, Meliker J, Song Q, Jacobs DR, Lloyd-Jones D, Hou L, **Zhang K***. 2024. Temperature and carotid intima-medial thickness: The coronary artery risk development in young adults (CARDIA) study. **Science of The Total Environment** 954: 176573.

160. Tang Z, Zhou M, **Zhang K**, Song Q. 2024. scPerb: Predict single-cell perturbation via style transfer-based variational autoencoder. **J Adv Res** :S2090-1232(24)00489-2.

159. Hu M, Han S, Ghorbany S, **Zhang K**. 2024. Healthy Aging in Place with the Aid of Smart Technologies: A Systematic Review. **Encyclopedia**.4(4):1918-1932.

158. Guan Y., Shen J., **Zhang K.**, Fuemmeler BF, Zhao H. 2024. Allostatic Load, Cigarette Smoking, and Lung Cancer Risk. **Cancers** 16(18): 3235.

157. Guo C, Loo B PY, Feng K, Gao H, **Zhang K**. 2024. Fifteen Pathways between Electric Vehicles and Public Health: A Transportation–Health Conceptual Framework. **Environment & Health** 2(12): 848-853.

156. Zhao X, Zhou Y, Li X, Zhang T, Wang Y, Zhu Z, **Zhang K**, Li D. 2024. Improving assessment of population exposure and health impacts to PM2.5 with high spatial and temporal data. **GIScience & Remote Sensing** 61(1): 2388921.

155. Liu C, Yang Z, He L, Xiao Y, Zhao H, Zhang L, Liu T, Chen R, **Zhang K**, Luo B. 2024. Optimal lifestyle patterns for delaying ageing and reducing all-cause mortality: insights from the UK Biobank. **European Review of Aging and Physical Activity**. 21(1): 27.

154. Sun Y, Zhang R, Tian L, Pan Y, Sun X, Huang Z, Fan J, Chen J, **Zhang K**, Li S, Chen W, Bazzano L, Kelly T, He J, Bundy J, Li C. 2024. Novel Metabolites Associated With Blood Pressure After Dietary Interventions. **Hypertension** 81(9): 1966-1975.

153. Kim K, Joyce B, Zheng Y, Nannini D, Wang J, Gordon-Larsen P, Bhatt A, Gabriel KP, Shikany J, Hu M, Chen A, Reges O, Carnethon M, Lloyd-Jones D, **Zhang K***, Hou L*. 2024. Associations of urban blue and green spaces with coronary artery calcification in Black individuals and disadvantaged neighborhoods. **Circulation** 150(3):203-214.

152. Perry AS, **Zhang K**, Murthy VL, Choi B, Zhao S, Gajjar P, Colangelo LA, Hou L, Rice MB, Carr JJ, Carson AP, Nigra AE, Vasan RS, Gerszten RE, Khan SS, Kalhan R, Naylor M, Shah RV. Proteomics, Human Environmental Exposure, and Cardiometabolic Risk. **Circulation Research**. <https://doi:>

10.1161/CIRCRESAHA.124.324559 .

151. Du S, Chien L-C, Bush KF, Giri S, Richardson LA, Li M, Jin Q, Li T, Nicklett EJ, Li R, **Zhang K***. 2024. Short-term associations between precipitation and Gastrointestinal illness-related hospital admissions: A multi-city study in Texas. *Science of the Total Environment*. 951 (15): 175247

150. Liu C, He L, Shan X, Zhang L, Ge E, **Zhang K**, Luo B. 2024. The Burden of Occupational Noise-Induced Hearing Loss From 1990 to 2019: An Analysis of Global Burden of Disease Data. *Ear and Hearing* 9900.

149. Zhang L, Zhou E, Liu C, Tian X, Xue B, **Zhang, K.** Luo B. 2024. Avian influenza and gut microbiome in poultry and humans: A “One Health” perspective. *Fundamental Research* 4 (3), 455-462.

148. Sun Y, Zhang R, Tian L, Pan Y, Sun X, Huang Z, Fan J, Chen J, **Zhang K**, Li, S.; et al. 2024 Novel Metabolites Associated With Blood Pressure After Dietary Interventions. *Hypertension* 0 (0). DOI: doi:10.1161/HYPERTENSIONAHA.124.22999.

147. Feng H, Ge E, Grubic N, Liu X, Zhang H, Sun Q, Wei X, Zhou F, Huang S, Chen Y, Guo H, Li J, **Zhang K**, Luo M, Chen L. 2024 Coarse particulate air pollution and mortality in a multidrug-resistant tuberculosis cohort. *Science of The Total Environment* 2024, 946, 174048.

146. Lao XQ, Bo Y, Chen D, Zhang K, Szeto C.-C. Environmental pollution to kidney disease: an updated review of current knowledge and future directions. *Kidney International* 2024, 106 (2), 214-225.

145. Wang X, Zhang Y, Tarik B, **Zhang K**, Lin S, Deng X, Gu H, Wu W, Lin X, Du Z, et al., 2024. The effect of residential greenness on cardiovascular mortality from a large cohort in South China: An in-depth analysis of effect modification by multiple demographic and lifestyle characteristics. *Environment International* 190:108894.

144. Hu M, **Zhang K***, Su KJ, Qin T, Shen H, Deng HW. 2024. Unveiling the Link between Physical Activity Levels and Dementia Risk: Insights from the UK Biobank Study, *Psychiatry Research*: 115875. <https://doi.org/10.1016/j.psychres.2024.115875>.

143. Yao J, Zheng Y, Shen J, Joyce B, T, Hao K, Shah R, V, Murthy V, L, Sidney S, Lloyd-Jones D, Hou L, & **Zhang K***, 2024, Racial Disparity in PM_{2.5} Species and DNA Methylation in CARDIA: An Epigenome-wide Association Study, *The Innovation Medicine* 2(2): 100061,

142. **Zhang K**, Lin J, Li Y, Sun Y, Tong W, Li F, Chien LC, Yang Y, Su W,-C, Tian H, Fu P, Qiao F, Romeiko X, X, Lin S, Luo S, & Craft E. 2024. Unmasking the sky: high-resolution PM_{2.5} prediction in Texas using machine learning techniques, *Journal of Exposure Science & Environmental Epidemiology*, <https://doi.org/10.1038/s41370-024-00659-w>

141. Yu M, Zhang S, Ning H, Li Z, & **Zhang K**. 2024. Assessing the 2023 Canadian wildfire smoke impact in Northeastern US: Air quality exposure and environmental justice, *Science of The Total Environment* 926 171853.

140. Yuan H, Kehm R, D, Daaboul J, M, Lloyd S, E, McDonald J, A, Mu L, Tehranifar P, **Zhang K**, Terry M, B, & Yang W. 2024. Cancer incidence trends in New York State and associations with common population-level exposures 2010–2018: an ecological study, *Scientific Reports* 14(1): 7141.

139. Huang Y, Li Y, Li R, & **Zhang K**. 2024. The privilege of working from home and health disparities during the covid-19 pandemic in major American cities, *Health & Place* 86: 103183.

138. Beauchamp A, M, Shen G, C, Hussain S, H, Adam A, Highfield L, & **Zhang K**. 2024. Cultural context index: A geospatial measure of social determinants of health in the United States, *SSM - Population Health* 25: 101591.

137. Chung M, K, House J, S, Akhtari F, S, Makris K, C, Langston M, A, Islam K, T, Holmes P, Chadeau-Hyam M, Smirnov A, I, Du X, Thessen A, E, Cui Y, **Zhang K**, Manrai A, K, Motsinger-Reif A, Patel CJ. 2024. Decoding the exposome: data science methodologies and implications in exposome-wide association studies (ExWASs), *Exposome* 4(1), <https://doi.org/10.1093/exposome/osae001>

136. Hu X, Hu Z, Xu T, **Zhang K**, Lu H, H, Zhao J, Boerwinkle E, Jin L, & Xiong M, (2024), Equilibrium points and their stability of COVID-19 in US, *Scientific Reports* 14(1) 1628, 136.

135. Yang H-Y, Chou H-L, Leow CHW, Kao CC, Daniel D, Jaladara V, Khoe LC, Latha PK, Mahendradhata Y, Nguyen PM, Sirijatuphat R, Soemarko DS, Venugopal V, **Zhang K**, & Lee JKW. 2024. Poor personal protective equipment practices were associated with heat-related symptoms among Asian healthcare workers: a large-scale multi-national questionnaire survey. *BMC Nursing*, 23(1), 145.

134. Ciciora D, Vasquez E, Valachovic E, Hou L, Zheng Y, Xu H, Jiang X, Huang K, Gabriel KP, Deng HW, Gallant MP, **Zhang K***. 2024. Social and Behavior Factors of Alzheimer's Disease and Related Dementias: A National Study in the U.S. *American Journal of Preventive Medicine*. 66 (4): 573-581

133. Gao T, Zheng Y, Joyce BT, Kho M, Terry JG, Wang J, Nannini D, Carr JJ, Nair S, **Zhang K**, Zhao W, Jacobs DR, Schreiner PJ, Greenland P, Lloyd-Jones D, Smith JA, Hou L. 2024. Epigenetic Aging is Associated with Measures of Midlife Muscle Volume and Attenuation in CARDIA Study. *The Journals of Gerontology: Series A*. 79(3): glad261.

132. Zhao H, He L, Liu C, Shan X, Gui C, Zhang L, Yu Y, Xiao Y, Xue J, **Zhang K***, Luo B*. 2024. Self-harm and interpersonal violence due to high temperature from the global burden of disease study 2019: A 30-year assessment. *Environmental Research* 243: 117826.

131. Su WC, Lee J, Afshar M, **Zhang K**, Han I. 2024. Assessing community health risks from exposure to ultrafine particles containing transition metals in the Greater Houston Area. *Science of The Total Environment* 912: 169067.

130. Guo C, Ge E, Yu M, Li C, Lao X, Li S, Glaser J, He Y, Almeida-Silva M, Meng S, Su WC, Zhang J, Lin S, **Zhang K***. 2024. Impact of heat on emergency hospital admissions related to kidney diseases in Texas: Uncovering racial disparities. *Science of The Total Environment* 909: 168377.

129. Wu R, Kang N, Zhang C, Song Y, Liao W, Hong Y, Hou J, **Zhang K**, Tian H, Lin H, Wang C. 2024. Long-term exposure to PM_{2.5} and its components is associated with elevated blood pressure and hypertension prevalence: Evidence from rural adults. *Journal of Advanced Research*. 60: 173-181.

128. Guo C, Ge E, Lee S, Lu Y, Bassill NP, Zhang N, Zhang W, Lu Y, Hu Y, Chakraborty C, Emeny RT, **Zhang K***. 2024. Impact of Heat on Emergency Hospital Admission in Texas: Geographic and Racial/Ethnic Disparities. Accepted by *Journal of Exposure Science and Environmental Epidemiology*. 34: 927–934.

127. Li Y, Huang Y, Li R, **Zhang K***. 2024. Historical redlining and park use during the COVID-19 pandemic: evidence from big mobility data. *Journal of Exposure Science and Environmental Epidemiology*. 34: 399–406.

126. Xu R, Huang X, **Zhang K**, Lyu W, Ghosh D, Li Z, Chen X. 2023. Integrating human activity into food environments can better predict cardiometabolic diseases in the United States. *Nature Communication* 14: 7326.

125. Li Z, Zhang K, Talebi Y, Wu H, Chan W, Boerwinkle E, Xiong M. 2023. Causal Inference for Estimation of Vaccine Effects from Time-to-Event Data. *Global J Appl Sci Technol* 5(2): 157

124. Wu X, Chen WY, **Zhang K**, Lu Y. 2023. The dynamic impact of COVID-19 pandemic on park visits: A longitudinal study in the United States. *Urban Forestry & Urban Greening* 90: 128154.

123. Xiao Y, Liu C, Lei R, Wang Z, Wang X, Tian H, Xue B, Zhou E, **Zhang K***, Hu J*, Luo Bin*. 2023. Associations of PM2.5 composition and green space with metabolic syndrome in a Chinese essential hypertensive population. *Chemosphere* 343: 140243

122. Zheng Y, He Y, Kang N, Zhang C, Liao W, Yuchi Y, Liu X, Hou J, Mao Z, Huo W, **Zhang K**, Tian H, Lin H, Wang C. 2023. Associations of Long-Term Exposure to PM2.5 and Its Constituents with Erythrocytosis and Thrombocytosis in Rural Populations. *Toxics* 11:885

121. Su W-C, Lee J, **Zhang K**, Wong S-W, Buu A. 2023. Estimation of Health Risks Caused by Metals Contained in E-Cigarette Aerosol through Passive Vaping. *Toxics*. 11(8):684.

120. Liu C, He L, Li Y, Yang A, **Zhang K**, Luo B. 2023. Diabetes Risk Among US Adults with different Socioeconomic Status and Behavioral Lifestyles: Evidences from the National Health and Nutrition Examination Survey. *Frontiers in Public Health*. 11:1197947.

119. Wu R, Kang N, Zhang C, Song Y, Liao W, Hong Y, Hou J, **Zhang K**, Tian H, Lin H, Wang C. 2023.

Long-term exposure to PM_{2.5} and its components is associated with elevated blood pressure and hypertension prevalence: Evidence from rural adults. *Journal of Advanced Research*. S2090-1232(23)00204-7. doi: 10.1016/j.jare.2023.07.012. PMID: 37517519.

118. Tsoi KH, Loo BPY, Li X, **Zhang K**. 2023. The co-benefits of electric mobility in reducing traffic noise and chemical air pollution: Insights from a transit-oriented city. *Environment International* 178:108116.
117. Yu M, Zhang S, **Zhang K**, Yin J, Varela M and Miao J. 2023. Developing high-resolution PM_{2.5} exposure models by integrating low-cost sensors, automated machine learning, and big human mobility data. *Frontiers in Environmental Science* 11:1223160.
116. Wu G, Wang S, Jiang Z, Hopke PK, Rich DQ, Chen L, Lin S, **Zhang K**, Romeiko XX, Qu Y, Deng X, Lin Z, Xiao J, Zhang W, Hao Y. 2023. Spatial-temporal pattern of tuberculosis mortality in China and its relationship with long-term PM_{2.5} exposure based on a causal inference approach. *Environmental Research Letters* 18:084006.
115. Du S, Yao J, Shen G, Lin B, Udo T, Hastings J, Wang F, Wang F, Zhang Z, Ye X, **Zhang K***. 2023. Social Drivers of Mental Health: A U.S. Study Using Machine Learning. *American Journal of Preventive Medicine*. 65(5):835 – 843.
114. Kim K, Joyce B, Nannini DR, Zheng Y, Gordon-Larsen P, Shikany J, Lloyd-Jones DM, Hu M, Nieuwenhuijsen M, Vaughan DE, **Zhang K***, Hou L*. 2023. Inequalities in urban greenness and epigenetic aging: Different associations by race and neighborhood socioeconomic status. *Science Advances* 9: eadf8140.
113. **Zhang K***, Brook RD, Li Y, Rajagopalan S, Kim JB*. 2023. Air Pollution, Built Environment, and Early Cardiovascular Disease. *Circulation Research* 132(12): 1707-1724.
112. Li D, Zhang Y, Li X, **Zhang K**, Lu Y, Brown R. 2023. Climatic and Meteorological Exposure and Mental and Behavioral Health A Systematic Review and Meta-Analysis. *Science of The Total Environment* 892:164435.
111. Kim K, Yaffe K, Rehkopf D, Zheng Y, Nannini D, Perak A, Nagata JM, Miller G, **Zhang K**, Lloyd-Jones DM, Joyce BT, Hou L. 2023. Adverse childhood experiences are associated with accelerated epigenetic aging in midlife. *JAMA Network Open* 6(6):e2317987.
110. Guo C, Lanza K, Li D, Zhou Y, Aunan K, Loo B, Lee J, Luo B, Duan X, Zhang W, Zhang Z, Lin S, **Zhang K***. 2023. Impact of heat on all-cause and cause-specific mortality: A multi-city study in Texas. *Environmental Research* 224: 115453.
109. Figueroa-Solis E, Gimeno Ruiz de Porras D, Rojas-Garbanzo M, Whitehead L, **Zhang K**, Delclos GL2023. Prevalence and Geographic Distribution of Self-Reported Chronic Kidney Disease and Potential Risk Factors in Central America. *International Journal of Environmental Research and Public Health* 20(2):1308.
108. Hu M, **Zhang K**, Nguyen Q, Tasdizen T. 2023. The effects of passive design on indoor thermal comfort and energy savings for residential buildings in hot climates: A systematic review. *Urban Climate* 49: 101466.
107. Sun F, Yao J, Du S, Qian F, Appleton A, Tao C, Xu H, Liu L, Dai Q, Joyce B, Nannini D, Hou L, **Zhang K***. 2023. Social Determinants, Cardiovascular Disease, and Health Care Cost: A Nationwide Study in the United States Using Machine Learning. *Journal of the American Heart Association* 12(5): e027919
106. Tian T, Lin X, Huang T, **Zhang K**, Shi C, Wang P, Chen S, Guo T, Li Z, Qin P, Liang B, Zhang W, Hao Y. 2023. The risk of injuries during work and its association with precipitation: New insight from a sentinel-based surveillance and a case-crossover design. *Frontier Public Health* 11:1117948.
105. Wang Y, Du Z, Zhang Y, Chen S, Lin S, Hopke PK, Rich DQ, **Zhang K**, Romeiko X, Deng X, Qu Y, Liu Y, Lin Z, Zhu S, Zhang W, Hao Y. 2023. Long-term exposure to particulate matter and COPD mortality: Insights from causal inference methods based on a large population cohort in southern China. *Science of The Total Environment* 863: 160808.
104. Luo L, Bai X, Lv Y, Liu S, Guo Z, Liu W, Hao Y, Sun Y, Hao J, **Zhang K**, Zhao H, Lin S, Zhao S, Xiao Y, Yang J, Tian H. 2023. Exploring the driving factors of haze events in Beijing during Chinese New Year holidays in 2020 and 2021 under the influence of COVID-19 pandemic. *Science of The Total Environment* 859: 160172.

103. Kang N, Wu R, Liao W, Zhang C, Liu X, Mao Z, Huo W, Hou J, **Zhang K**, Tian H, Lin H, Wang C. 2023. Association of long-term exposure to PM2.5 constituents with glucose metabolism in Chinese rural population. *Science of The Total Environment* 859: 160364.

102. Lv Y, Tian H, Luo L, Liu S, Bai X, Zhao H, **Zhang K**, Lin S, Zhao S, Guo Z, Xiao Y, Yang J. 2023. Understanding and revealing the intrinsic impacts of the COVID-19 lockdown on air quality and public health in North China using machine learning. *Science of The Total Environment* 857: 159339.

101. He L, Liu C, Shan X, Zhang L, Zheng L, Yu Y, Tian X, Xue B, Zhang Y, Qin X, Wang C, **Zhang K***, Luo B*. 2023. Impact of high temperature on road injury mortality in a changing climate, 1990–2019: A global analysis. *Science of The Total Environment* 857: 159369.

100. Shi C, Lin X, Huang T, **Zhang K**, Liu Y, Tian T, Wang P, Chen S, Guo T, Li Z, Liang B, Qin P, Zhang W, Hao Y. 2023. The association between wind speed and the risk of injuries among preschool children: New insight from a sentinel-surveillance-based study. *Science of The Total Environment* 856: 159005.

99. Jiang N, Qi L, Wang B, Cao S, Wang L, Zou B, **Zhang K**, Qing N, Duan X. 2022. Traffic related activity pattern of Chinese adults: a nation-wide population based survey. *Journal of Exposure Science & Environmental Epidemiology*: doi.org/10.1038/s41370-022-00469-y.

98. Liu C, Luo B, Wang B, He L, Wu H, Hou L, **Zhang K**. 2022. Global spatiotemporal trends of cardiovascular diseases due to temperature in different climates and socio-demographic index regions from 1990 to 2019. *Environmental Science and Pollution Research*. <https://doi.org/10.1007/s11356-022-22407-z>

97. Zhang W, Deng X, Romeiko X, **Zhang K**, Sheridan SC, Brotzge J, Chang H, Stern EK, Guo Z, Dong G, Reliene R, Hao Y, Lin S. 2022. How neighborhood environment modified the effects of power outages on multiple health outcomes in New York state? *Hygiene and Environmental Health Advances* 4: 100039.

96. Nanda M, Sharma R, Mubarik S, Aashima A, **Zhang K**. 2022. Type-2 Diabetes Mellitus (T2DM): Spatial-temporal Patterns of Incidence, Mortality and Attributable Risk Factors from 1990 to 2019 among 21 World Regions. *Endocrine* 77(3):444-454.

95. Miao L, Tang S, Ren Y, Kwan MP, **Zhang K**. 2022. Estimation of daily ground-level PM2.5 concentrations over the Pearl River Delta using 1-km resolution MODIS AOD based on multi-feature BiLSTM. *Atmospheric Environment* 290: 119362

94. Li S, Wang G, Wang B, Cao S, **Zhang K**, Duan X, Wu W. 2022. Has the Risk of Outpatient Visits for Allergic Rhinitis, Related to Short-Term Exposure to Air Pollution, Changed over the Past Years in Beijing, China? *International Journal of Environmental Research and Public Health* 19(19): 12529.

93. Lei R, Wang Z, Wang X, Tian H, Wang B, Xue B, Xiao Y, Hu J*, **Zhang K***, Luo B*. 2022. Effects of long-term exposure to PM2.5 and chemical constituents on blood lipids in an essential hypertensive population: A multi-city study in China. *Ecotoxicology and Environmental Safety*. 242: 113867

92. Lee S, Ye X, Nam JW, **Zhang K**. 2022. The association between tree canopy cover over streets and elderly pedestrian falls: A health disparity study in urban areas. *Social Science & Medicine* 306: 115169.

91. Kim K, Zheng Y, Joyce BT, Jiang H, Greenland P, Jacobs DR, **Zhang K**, Liu L, Allen NB, Wilkins JT, Forrester SN, Lloyd-Jones DM, Hou L. 2022. Relative contributions of six lifestyle- and health-related exposures to epigenetic aging: the Coronary Artery Risk Development in Young Adults (CARDIA) Study. *Clinical Epigenetics* 14(1): 85.

90. Joyce B, Gao T, Koss K, Zheng Y, Cardenas A, Heiss J, Just A, **Zhang K**, van Horn L, Allen N, Greenland P, Cohen S, Gordon-Larsen P, Mitchell C, McLanahan S, Schnepel L, Notterman D, Rifas-Shiman S, Oken E, Hivert M, Wright R, Baccarelli A, Lloyd-Jones D, Hou L. 2022. Impact of paternal education on epigenetic ageing in adolescence and mid-adulthood: a multi-cohort study in the USA and Mexico. *International Journal of Epidemiology* 51(3): 870-884

89. Hu M, **Zhang K**, Nguyen QC, Tasdizen T, Krusche KU. 2022. A Multistate Study on Housing Factors Influential to Heat-Related Illness in the United States. *International Journal of Environmental Research and Public Health* 2022 19(23): 15762

88. Guo Q, **Zhang K**, Wang B, Cao S, Xue T, Zhang Q, Tian H, Fu P, Zhang J, Duan X. 2022. Chemical

constituents of ambient fine particulate matter and obesity among school-aged children: A representative national study in China. *Science of The Total Environment* 849:157742.

87. Emeny RT, **Zhang K**, Goodman D, Dev A, Lewinson T, Wolff K, Kerrigan CL, Kraft S. 2022. Inclusion of Social and Structural Determinants of Health to Advance Understanding of their Influence on the Biology of Chronic Disease. *Current Protocols* 2(10): e556.

86. Liu G, Moore K, Su W-C, Delclos GL, Gimeno Ruiz de Porras D, Yu B, Tian H, Luo B, Lin S, Lewis GT, Craft E, **Zhang K***. 2022. Chemical explosion, COVID-19, and environmental justice: Insights from low-cost air quality sensors. *Science of The Total Environment* 849: 157881

85. Lin S, Deng X, Zhang W, Ryan I, **Zhang K**, Oghaghare E, Bennett D, Shaw B. 2022. COVID-19 Symptoms and Deaths Among Healthcare Workers in the United States. *Emerging Infectious Diseases* 28(8): 1624–1632. PMCID: PMC9328912; PMID: 35798004

84. Wang B, Liu J, Lei R, Xue B, Li Y, Tian X, **Zhang K***, Luo B*. 2022. Cold exposure, gut microbiota, and hypertension: A mechanistic study. *Science of The Total Environment*. 2022:155199.

83. Egbert J, Krenz J, Sampson PD, Jung J, Calkins M, **Zhang K**, Palmández P, Faestel P, Spector JT. 2022. Accuracy of an estimated core temperature algorithm for agricultural workers. *Archives of Environmental & Occupational Health*.:1-10.

82. He L, Xue B, Wang B, Liu C, Gimeno D, Delclos GL, Hu M, Luo B*, **Zhang K***. 2022. Impact of high, low, and non-optimum temperatures on chronic kidney disease in a changing climate, 1990–2019: A global analysis. *Environ Res.* 212:113172.

81. Xue B, Wang B, Lei R, Li Y, Luo B*, Yang A*, **Zhang K***. 2022. Indoor solid fuel use and renal function among middle-aged and older adults: A national study in rural China. *Environ Res.*: 206:112588.

80. Miao L, Liu C, Yang X, Kwan M-P, **Zhang K**. 2022 Spatiotemporal heterogeneity analysis of air quality in the Yangtze River Delta, China. *Sustainable Cities and Society* 78:103603.

79. Luo L, Bai X, Liu S, Wu B, Liu W, Lv Y, Guo Z, Lin S, Zhao S, Hao Y, Hao J, **Zhang K**, Zheng A, Tian H. 2022. Fine particulate matter (PM2.5/PM1.0) in Beijing, China: Variations and chemical compositions as well as sources. *Journal of Environmental Sciences*.121:187-98.

78. Huang X, Zhang R, Li X, Dadashova B, Zhu L, Zhang K, Li Y, Shen B. 2022. Health-Based Geographic Information Systems for Mapping and Risk Modeling of Infectious Diseases and COVID-19 to Support Spatial Decision-Making. *Adv Exp Med Biol* 1368:167-188. PMID: 35594025

77. Li H, Li M, Zhang S, Qian Z, Zhang Z, **Zhang K**, Wang C, Arnold LD, McMillin SE, Wu S, Tian F, Lin H. 2022. Interactive effects of cold spell and air pollution on outpatient visits for anxiety in three subtropical Chinese cities. *Science of The Total Environment* 817:152789.

76. Su W, Lee J, Xi J, **Zhang K**. 2022. Investigation of Mask Efficiency for Loose-fitting Masks against Ultrafine Particles and Effect on Airway Deposition Efficiency. *Aerosol and Air Quality Research* 22: 210228.

75. Liu S, Tian H, Luo L, Bai X, Zhu C, Lin S, Zhao S, **Zhang K**, Hao J, Guo Z, Lv Y. 2022. Health impacts and spatiotemporal variations of fine particulate and its typical toxic constituents in five urban agglomerations of China. *Science of The Total Environment* 806 (4): 151459.

74. Zhao H*, Shen J, Chang D, Ye Y, Wu X, Chow WH, **Zhang K***. 2021 Land Use Mix and Leukocyte Telomere Length in Mexican Americans. *Scientific Reports* 11(1): 19742

73. Liu S, Tian H, Bai X, Zhu C, Wu B, Luo L, Hao Y, Liu W, Lin S, Zhao S, Wang K, Liu K, Gao J, Zhang Q, **Zhang K**, Kan K, Liu Y, Hao J. 2021. Significant but Spatiotemporal-Heterogeneous Health Risks Caused by Airborne Exposure to Multiple Toxic Trace Elements in China. *Environmental Science & Technology* 55 (19): 12818-12830.

72. Lanza K, Alcazar M, Ehlers S, Durand C, **Zhang K**, Kohl H. 2021 *School Parks as a Community Health Resource: Use of Joint-Use Parks by Children before and during COVID-19 Pandemic*. *International Journal of Environmental Research and Public Health* 18: 9237.

71. Cianconi P, Hanife B, Grillo F, **Zhang K**, Janiri L. *Human Responses and Adaptation in a Changing Climate: A Framework Integrating Biological, Psychological and Behavioural Aspects*. Life 11, 895. <https://doi.org/10.3390/life11090895>.

70. Wang B, Wang S, Li L, Xu S, Li C, Li S, Wang J, He H, Niu J, **Zhang K**, Luo B. 2021. *The association between drought and outpatient visits for respiratory diseases in four northwest cities of China*. Climatic Change 167, 2: doi.org/10.1007/s10584-021-03152-7.

69. Liu C, Wang B, Liu S, Li S, **Zhang K**, Luo B, Yang A. 2021. *Type 2 diabetes attributable to PM_{2.5}: A global burden study from 1990 to 2019*. Environment International 156: 106725.

68. Xu X, Qin N, Qi L, Zou B, Cao S, **Zhang K**, Yang Z, Liu Y, Zhang Y, Duan X. 2021. *Development of season-dependent land use regression models to estimate BC and PM₁ exposure*. Science of Total Environment 793: 148540.

67. Fu S, Wang B, Zhou J, Xu X, Liu J, Ma Y, Li L, He X, Li S, Niu J, Luo B, **Zhang K**. 2021. *Meteorological factors, governmental responses and COVID-19: Evidence from four European countries*. Environmental Research 194: 110596. PMCID: PMC7724291. PMID: 33307083

66. Luo L, Tian H, Tian H, Liu H, Bai X, Liu W, Liu S, Wu B, Lin S, Zhao S, Hao Y, Sun Y, Hao J, **Zhang K**. 2021. *Seasonal variations in the mass characteristics and optical properties of carbonaceous constituents of PM_{2.5} in six cities of North China*. Environmental Pollution 268: 115780.

65. Ma Y, Li S, Liu J, He X, Li L, Niu J, Luo B, **Zhang K**. 2021. *Impact of Absolute Humidity and Temperature on Eczema*. Biomedical and Environmental Sciences 34(1): 61-65. PMID: 33531108

64. Li Z, Xu T, **Zhang K**, Deng H, Boerwinkle E, Xiong M. 2020. *Causal Analysis of Health Interventions and Environments for Influencing the Spread of COVID-19 in the United States of America*. Frontiers in Applied Mathematics and Statistics: doi: 10.3389/fams.2020.611805.

63. He X, Zhou G, Ma Y, Li L, Fu S, Liu S, Liu C, He Y, Su Z, Liu J, Niu J, Zhu W, **Zhang K**, Luo B. 2020. *Winter vacation, indoor air pollution and respiratory health among rural college students: A case study in Gansu Province, China*. Building and Environment: doi.org/10.1016/j.buildenv.2020.107481

62. O'Lenick C, Baniassadi A, Michael R, Monaghan A, Boehnert J, Yu X, Hayden M, Wiedinmyer C, **Zhang K**, Crank P, Heusinger J, Hoel P, Sailor D, Wilhelmi O. 2020. *A case-crossover analysis of indoor heat exposure on mortality and hospitalizations among the elderly in Houston, Texas*. Environmental Health Perspective 128(12): 127007.

61. Wang B, Liu J, Li Y, Fu S, Xu X, Li L, Zhou J, Liu X, He X, Yan J, Shi Y, Niu J, Yang Y, Li Y, Luo B, **Zhang K**. 2020. *Airborne particulate matter, population mobility and COVID-19: a multi-city study in China*. BMC Public Health. 20:1585. doi: 10.1186/s12889-020-09669-3. PMCID: PMC7576551.

60. Zhao H*, Shen J, Leung E, Zhang X, Chow WH, **Zhang K***. 2020. *Leukocyte mitochondrial DNA copy number and built environment in Mexican Americans: a cross-sectional study*. Scientific Reports 10: 14988. PMID: 32917938 PMCID: PMC7486918.

59. Li Y, Bakos-Block C, Rammah A, Magal, R, Adekanye J, Esquenazi S, McDaniel MR, **Zhang K**, Symanski E, Perkison WB, 2020. *The Post Hurricane Harvey Respiratory Protection Training Program*. Journal of Occupational and Environmental Medicine. 62(10):842-846. PMID: 32769779

58. Li Z, **Zhang K**, Xu T, Deng HW, Boerwinkle E, Xiong M. 2020. *Evaluation of Various Health Interventions to Curb the Spread of COVID-19 in the United States of America*. Epidemiology International Journal 4(4): 000157.

57. Liu J, Zhou J, Yao J, Zhang X, Li L, Xu X, He X, Wang B, Fu S, Niu T, Yan J, Shi Y, Ren X, Niu J, Zhu W, Li S, Luo B*, **Zhang K***, 2020. *Impact of meteorological factors on the COVID-19 transmission: A multi-city study in China*. Science of Total Environment 726(15): 138513. PMID: 32304942 PMCID: PMC7194892.

56. Fang S, Hu Z, Xu T, Zhang K, Li S, Lee J, Xiong M. 2020. *Mass testing and containment of COVID-19*. Journal of Emergency Medicine Trauma & Surgical Care S1001.

55. Chido-Amajuoyi OG, Ozigbu C, **Zhang K**. 2020. *School proximity and census tract correlates of e-cigarette specialty retail outlets (vape shops) in Central Texas*. Preventive Medicine Reports 18: 101079.

DOI:10.1016/j.pmedr.2020.101079. PMID: 32257777 PMCID: PMC7115100.

54. Yang Y, Li S, **Zhang K**, Xiang X, Li Z, Ahn S, Murphy J. 2020. *How the Daily Smartphone is Associated With Daily Travel, Physical Activity, and Self-Perceived Health: Evidence From 2017 National Household Travel Survey*. Journal of Aging and Physical Activity: 1-9. PMID: 32434149. DOI: 10.1123/japa.2019-0222.
53. Liu X, Bai X, Tian H, Wang K, Hua S, Liu H, Liu S, Wu B, Wu Y, Liu W, Luo L, Wang Y, Hao J, Lin S, Zhao S, **Zhang K**. 2020. *Fine particulate matter pollution in North China: Seasonal-spatial variations, source apportionment, sector and regional transport contributions*. Environmental Research 184 (2020): 109368. PMID: 32192990.
52. Wu Y, Lin S, Tian H, **Zhang K**, Wang Y, Sun B, Liu X, Liu K, Xue Y, Hao J, Liu H, Liu S, Shao P, Luo L, Bai X, Liu W, Wu B, Zhao S. 2020. *A quantitative assessment of atmospheric emissions and spatial distribution of trace elements from natural sources in China*. Environmental Pollution 259:113918. PMID: 32023794 DOI: doi.org/10.1016/j.envpol.2020.113918.
51. Zhang X, Zhao H, Chow WH, Bixby M, Durand C, Markham C, **Zhang K***. 2020. *Population-Based Study of Traffic-Related Air Pollution and Obesity in Mexican Americans*. Obesity 28(2): 412-420. DOI: doi.org/10.1002/oby.22697. PMID: 31797571.
50. Li Q, Qiao F, McCreight C, Mao A, **Zhang K**. 2020. *Impact of Weaving Segment Configuration Designs on Drivers' Acute Driving Stress: A Case Study on Houston Freeway Weaving Segments*. International Journal of Civil Engineering 18:641-653. DOI: 10.1007/s40999-020-00497-5.
49. Delclòs-Alió X, Marquet O, Vich G, Schipperijn J, **Zhang K**, Maciejewska M, Miralles-Guasch C. 2019 *Temperature and Rain Moderate the Effect of Neighborhood Walkability on Walking Time for Seniors in Barcelona*. International Journal of Environmental Research and Public Health. 17(1):14. DOI: 10.3390/ijerph17010014. PMID: 31861363 PMCID: PMC6981853.
48. Mantravadi S, **Zhang K**. 2019. *Quality of Nursing Home: Spatial Patterns in Southwestern United States*. Journal of Strategic Innovation and Sustainability 14(5): 62-75 DOI:doi.org/10.33423/jsis.v14i5.2522.
47. Nannini D, Joyce B, Zheng Y, Gao T, Liu L, Yoon G, Huan T, Ma J, Jacobs D, Wilkins J, Ren J, **Zhang K**, Khan S, Allen N, Horvath S, Lloyd-Jones D, Greenland P, Hou L. 2019. *Epigenetic age acceleration and metabolic syndrome in the Coronary Artery Risk Development in Young Adults Study*. Clinical Epigenetics 11, 160. PMID: 31730017 PMCID: PMC6858654 DOI:doi.org/10.1186/s13148-019-0767-1.
46. Brown P, **RELISH Consortium**, Zhou Y. 2019. *Large expert-curated database for benchmarking document similarity detection in biomedical literature search*. Database: The Journal of Biological Databases and Curation. 2019: baz085. DOI:10.1093/database/baz085.
45. Liu J, Ma Y, Wang Y, Li S, Liu S, He X, Li L, Guo L, Niu J, Luo B, **Zhang K**. 2019. *The Impact of Cold and Heat on Years of Life Lost in a Northwestern Chinese City with Temperate Continental Climate*. International Journal of Environmental Research and Public Health 16(19): 3529. PMID: 31547211 PMCID: PMC6801473.
44. Liu S, Zhu C, Tian H, Wang Y, **Zhang K**, Wu B, Liu X, Hao Y, Liu W, Bai X, Lin S, Wu Y, Shao P, Liu H. 2019. *Spatiotemporal variations of ambient concentrations of trace elements in a highly polluted region of China*. Journal of Geophysical Research: Atmospheres 124: 4186–4202 DOI: doi.org/10.1029/2018JD029562.
43. Liu H, Tian H, **Zhang K**, Liu S, Cheng K, Yin S, Liu Y, Liu X, Wu Y, Liu W, Bai X, Wang Y, Shao P, Luo L, Lin S, Chen J, Liu X. 2019. *Seasonal variation, formation mechanisms and potential sources of PM_{2.5} in two typical cities in the Central Plains Urban Agglomeration, China*. Science of the Total Environment 657: 657-670. PubMed PMID: 30677932.
42. Tong W, Li L, Zhou X, Hamilton A, **Zhang K**. 2019. *Deep learning PM_{2.5} concentrations with bidirectional LSTM RNN*. Air Quality, Atmosphere & Health 12(4):411-423. DOI: 10.1007/s11869-018-0647-4.
41. Chen T, Du X, Chan WY, **Zhang K***. 2019. *Impacts of cold weather on emergency hospital admission in Texas, 2004-2013*. Environmental Research▲ 169: 139-146. PubMed PMID: 30453131.

40. Zhang X, Zhao H, Chow WH, Durand C, Markham C, **Zhang K***. 2019. *Associations between the built environment and body mass index in the Mexican American Mano A Mano cohort*. Science of the Total Environment▲ 654: 456-462. PubMed PMID: 30447584.

39. GBD 2017 Risk Factor Collaborators. 2018. *Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks for 195 countries and territories, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017*. The Lancet▲ 392(10159): 1923-1994. PubMed PMID: 30496105; PubMed Central PMCID: PMC6227755.

38. GBD 2017 Disease and Injury Incidence and Prevalence Collaborators. 2018. *Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017*. The Lancet▲ 392(10159): 1789-1858. PubMed PMID: 30496104; PubMed Central PMCID: PMC6227754.

37. GBD 2017 Causes of Death Collaborators. 2018. *Global, regional, and national age-sex-specific mortality for 282 causes of death in 195 countries and territories, 1980-2017: a systematic analysis for the Global Burden of Disease Study 2017*. The Lancet▲ 392(10159): 1736-1788. PubMed PMID: 30496103; PubMed Central PMCID: PMC6227606.

36. GBD 2017 Mortality Collaborators. 2018. *Global, regional, and national age-sex-specific mortality and life expectancy, 1950-2017: a systematic analysis for the Global Burden of Disease Study 2017*. The Lancet▲ 392(10159): 1684-1735. PubMed PMID: 30496102; PubMed Central PMCID: PMC6227504.

35. Nnoli N, Linder S, Smith M, Gretchen G, **Zhang K**. 2018. *The combined effect of ambient ozone exposure and toxic air releases on hospitalization for asthma among children in Harris County, Texas*. International Journal of Environmental Health Research, 28(4): 358-378. PubMed PMID: 29962221.

34. Zhang X, Chu Y, Wang Y, **Zhang K***. 2018. *Predicting daily PM_{2.5} concentrations in Texas using high-resolution satellite aerosol optical depth*. Science of the Total Environment▲ 631-632: 904-911. PubMed PMID: 29728001.

33. Acharya P, Boggess B, **Zhang K***. 2018. *Assessing heat stress and health among construction workers in a changing climate: A review*. International Journal of Environmental Research and Public Health▲ 15(2): 247. PubMed PMID: 29389908; PubMed Central PMCID: PMC5858316.

32. Durand C, **Zhang K**, Salvo D. 2017. *Weather is not significantly correlated with destination-specific transport-related physical activity among adults: A large-scale temporally matched analysis*. Preventive Medicine▲ 101:133-136. PubMed PMID: 28576399; PubMed Central PMCID: PMC5551438.

31. Zhang X, Craft E, **Zhang K***. 2017 *Characterizing Spatial Variability of Air Pollution from Vehicle Traffic around the Houston Ship Channel Area*. Atmospheric Environment▲ 161: 167-175. DOI: 10.1016/j.atmosenv.2017.04.032.

30. Chen T, Li X, Zhao J, **Zhang K***. 2017. *Impacts of cold weather on all-cause and cause-specific mortality in Texas, 1990-2011*. Environmental Pollution▲ 225: 244-251. PubMed PMID: 28390302.

29. Luong C, **Zhang K***. 2017. *An Assessment of Emissions Events Trends within the Greater Houston Area during 2003-2013*. Air Quality, Atmosphere & Health▲ 10(5): 543-554. DOI: 10.1007/s11869-016-0449-5

28. Danysh H, Mitchell L, **Zhang K**, Scheurer M, Lupo P. 2017. *Differences in environmental exposure assignment due to residential mobility among children with a central nervous system tumor: Texas, 1995-2009*. Journal of Exposure Science And Environmental Epidemiology▲ 27: 41-46. PubMed PMID: 26443468.

27. Liu S, Ganduglia C, Li X, Delclos G, Franzini L, **Zhang K***. 2016. *Short-term Associations of Fine Particulate Matter Components and Emergency Hospital Admissions among a Privately Insured Population in Greater Houston*. Atmospheric Environment▲ 147: 369-375. DOI: 10.1016/j.atmosenv.2016.10.021.

26. Hou L**, **Zhang K****, Luthin M, Baccarelli A**. 2016. *Public Health Impact and Economic Costs of Volkswagen's Lack of Compliance with the United States' Emission Standards*. International Journal of Environmental Research and Public Health 13(9): 891 (** equal contribution). PubMed PMID: 27618076; PubMed Central PMCID: PMC5036724.

25. Liu S, Ganduglia C, Li X, Delclos G, Franzini L, **Zhang K***. 2016. *Fine Particulate Matter Components and Emergency Department Visits among a Privately Insured Population in Greater Houston*. Science of the Total Environment▲ 566–567:521–527. PubMed PMID: 27235902.

24. Liu Z, **Zhang K**, Du X. 2016. *Risks of developing breast and colorectal cancer in association with incomes and geographic locations in Texas: a retrospective cohort study*. BMC Cancer▲ 16(1):294. PubMed PMID: 27118258; PubMed Central PMCID: PMC4847204.

23. Chien L, Guo Y, **Zhang K***. 2016. *Spatiotemporal analysis of heat and heat wave effects on elderly mortality in Texas, 2006–2011*. Science of the Total Environment▲ 562:845–851. PubMed PMID: 27110995.

22. **Zhang K***, Arauz R, Chen T, Cooper S. 2016. *Heat effects among migrant and seasonal farmworkers: A case study in Colorado*. Occupational and Environmental Medicine▲ 73(5):324–328. PubMed PMID: 26872487.

21. Danysh H, **Zhang K**, Mitchell L, Scheurer M, Lupo P. 2016. *Maternal residential proximity to major roadways at delivery and Childhood central nervous system tumors*. Environmental Research▲ 146:315–322. PubMed PMID: 26802618.

20. Xie Y, Wang Y, **Zhang K**, Dong W, Lv B, Bai Y. 2015. *Daily estimation of ground-level PM_{2.5} concentrations over Beijing using 3 km resolution MODIS AOD*, Environmental Science & Technology▲ 49(20): 12280–12288. PubMed PMID: 26310776.

19. Liu S, **Zhang K***. 2015. *Fine particulate matter components and mortality in Greater Houston: Did the risk reduce from 2000 to 2011?* Science of the Total Environment▲ 538:162–168. PubMed PMID: 26311577.

18. Yan F, Chu Y, **Zhang K**, Zhang F, Bhandari N, Ruan G, Dai Z, Liu Y, Zhang Z, Kan AT, Tomson MB. 2015. *Determination of adsorption isotherm parameters with correlated errors by measurement error models*. Chemical Engineering Journal▲ 281: 921–930. DOI: 10.1016/j.cej.2015.07.021.

17. Rivera-González L, Zhang Z, Sánchez B, **Zhang K**, Brines S, Brown D, Rojas-Bracho L, Osornio-Vargas A, Vadillo-Ortega F, O'Neill M. 2015. *An assessment of air pollutant exposure methods in Mexico City, Mexico..* Journal of the Air & Waste Management Association▲ 65(5): 581–591. PubMed PMID: 25947316; PubMed Central PMCID: PMC4670782.

16. Danysh H, Mitchell L, **Zhang K**, Scheurer M, Lupo P. 2015. *Traffic-related air pollution and the incidence of childhood central nervous system tumors: Texas, 2001–2009*. Pediatric Blood & Cancer▲ 62(9):1572–8. PubMed PMID: 25962758.

15. **Zhang K***, Chen T, Begley C. 2015. *Impact of the 2011 heat wave on mortality and emergency department visits in Houston, Texas*, Environmental Health▲ 14:11. PubMed PMID: 25627975; PubMed Central PMCID: PMC4417210.

14. Zhou W, Ji S, Chen T, Hou Y, **Zhang K***. 2014. *The 2011 heat wave in Greater Houston: Effects of land use on temperature*, Environmental Research▲ 135: 81–87. PubMed PMID: 25262079.

13. **Zhang K***, Li Y, Schwartz J, O'Neill M. 2014. *What weather variables are important in predicting heat-related mortality? A new application of statistical learning methods*, Environmental Research▲ 132: 350–359. PubMed PMID: 24834832; PubMed Central PMCID: PMC4091921.

12. **Zhang K***, Chen Y, Schwartz J, Rood R, O'Neill M. 2014. *Using forecast and observed weather data to assess performance of forecast products in identifying heat waves and estimating heat wave effects on mortality*, Environ Health Perspect▲ 122(9): 912–918. PubMed PMID: 24833618; PubMed Central PMCID: PMC4154209.

11. **Zhang K***, Larson T, Gassett A, Szpiro A, Daviglus M, Burke G, Kaufman J, Adar S. 2014. *Characterizing spatial patterns of airborne coarse particulate (PM_{10-2.5}) mass and chemical components in three cities: The Multi-Ethnic Study of Atherosclerosis*, Environ Health Perspect▲ 122(8): 823–830. PubMed PMID: 24642481; PubMed Central PMCID: PMC4123025.

10. White-Newsome J, Brines S, Brown D, Dvonch JT, Gronlund C, **Zhang K**, Oswald E, O'Neill M. 2013. *Validating satellite-derived land surface temperature with in-situ measurements: a public health perspective*,

Environ Health Perspect▲ 121(8):925-31. PubMed PMID: 23777856; PubMed Central PMCID: PMC3734495.

9. **Zhang K**, Batterman S. 2013. *Air pollution and health risks due to vehicle traffic*, Science of the Total Environment▲ 450-451: 307-316. PMID: 23500830; PubMed Central PMCID: PMC4243514.
8. **Zhang K***, Rood R, Michailidis G, Oswald E, Schwartz J, Zanobetti A, Ebi K, O'Neill M. 2012. *Comparing exposure metrics for classifying 'dangerous heat' in heat wave and health warning systems*, Environment International▲ 46(1): 23-29. PubMed PMID: 22673187; PubMed Central PMCID: PMC3401591.
7. Oswald E, Rood R, **Zhang K**, Gronlund C, O'Neill M, White-Newsome J, Brines S, Brown D. 2012. *An investigation into the spatial variability of near-surface air temperatures in the Detroit, MI metropolitan region*, Journal of Applied Meteorology and Climatology▲, 51(7): 1290-1304. DOI:10.1175/JAMC-D-11-0127.1
6. **Zhang K***, Oswald E, Brown D, Brines S, Gronlund C, White-Newsome J, Rood R, O'Neill M. 2011. *Geostatistical exploration of spatial variation of summertime temperatures in the Detroit metropolitan region*, Environmental Research▲ 111(8): 1046-1053. PubMed PMID: 21924413; PubMed Central PMCID: PMC4345124.
5. **Zhang K**, Batterman S, Dion F. 2011. *Vehicle emissions in congestion: comparison of work zone, rush hour and free-flow conditions*, Atmospheric Environment▲ 45(11):1929-1939. DOI: 10.1016/j.atmosenv.2011.01.030.
4. Batterman S, **Zhang K**, Kononowech R. 2010. *Prediction and analysis of near-road concentrations using a reduced-form emission/dispersion model*, Environmental Health▲ 9-29. PubMed PMID: 20579353; PubMed Central PMCID: PMC2914002.
3. **Zhang K**, Batterman S. 2010. *Near-road air pollutant concentrations of CO and PM_{2.5}: A comparison of MOBILE6.2/CALINE4 and generalized additive models*. Atmospheric Environment▲ 44:1740-1748. DOI: 10.1016/j.atmosenv.2010.02.008
2. **Zhang K**, Batterman S. 2009. *Time allocation shifts and pollutant exposure due to traffic congestion: An analysis using the national human activity pattern survey*, Science of The Total Environment▲ 407:5493-5500. PubMed PMID: 19683333.
1. Stevanovic A, Stevanovic J, **Zhang K**, Batterman S. 2009. *Optimizing traffic control to reduce fuel consumption and vehicular emissions: Integrated approach of VISSIM, CMEM, and VISGAOST*. Transportation Research Record. 2009; 2128(1):105-113

SERVICE

Leadership and Service

- **2025** Secretary of the International Societies of Exposure Science (ISES)
- **2021 - 2024** - Executive Committee Member of the University at Albany Asian Coalition of Professionals

Department Service

- **2022 - 2024** UAlbany EHS Dept. Personnel Committee Member
- **2021- 2024** UAlbany EHS Dept. Preliminary Examination Committee Member
- **2013 - 2020** UTHealth EOHS Program Curriculum Committee
- **2016 - 2020** UTHealth EOHS Program Admission Committee

School/College Service

- **2023** UAlbany SPH AI faculty search committee
- **2021 - 2024** UAlbany SPH Academic Committee
- **2021** UAlbany SPH Student Poster Judge
- **2019 - 2020** Associate Director and then Director of Pilot Projects Research Training Program at

Southwest Center for Occupational and Environmental Health

University Service

- **2024** SUNY System STRIVE Task Force
- **2023** UAlbany AI Curriculum Committee (SPH Representative)
- **2014 - 2016** The University of Texas Health Science Center at Houston (UTHealth) Chemical Safety Committee

Professional Service

- **2025** Grant Reviewer for NIH Social and Environmental Determinants of Health Study Section (SEDH)
- **2024** Grant Reviewer for NIH Health Services Quality and Effectiveness Study Section (HSQE)
- **2024** Grant Reviewer for NIMHD Review of K-level Career Development Applications
- **2024** Grant Reviewer for NIH Healthcare and Health Disparities Study Section (HHD)
- **2024** Grant Reviewer for NIH Social Sciences and Population Studies (B) Study Section (SSPB)
- **2024** Grant Reviewer for American Heart Association
- **2024** Grant Reviewer for NIOSH grant review panel for National Center for Construction Safety and Health Research and Translation
- **2024** Lead of Plenary Speaker Subcommittee of the Conference of the International Societies of Exposure Science (ISES 2024) and Technical Organizing Committee Member
- **2023** Grant Reviewer for NIH Special Emphasis Panel (SEP) for the review of Exploratory Grants for Climate Change and Health Research Center Development
- **2023** Lead of Plenary Speaker Subcommittee of the Conference of the International Societies of Exposure Science (ISES 2023) and Technical Organizing Committee Member
- **2023** Grant Reviewer for NIH Social Sciences and Population Studies (B) Study Section (SSPB)
- **2023** Grant Reviewer for NIOSH grant review panel for Centers for Agriculture Safety and Health Special Emphasis Panels
- **2022 - 2024** Advisory Board of New York Center for Agricultural Medicine and Health
- **2022** Grant Reviewer for NIH U24 Application "Research Coordinating Center to Support Climate Change and Health Community of Practice."
- **2022** Grant Reviewer for NIH Special Emphasis Panel (SEP) for the review of Mentored and Pathway to Independence Career Award Applications
- **2022** Grant Reviewer for US EPA STAR Grant – "Drivers and Environmental Impacts of Energy Transitions in Underserved Communities Request for Applications."
- **2022** Grant Reviewer for NIH Social Sciences and Population Studies (B) Study Section (SSPB)
- **2022** Grant Reviewer for NIOSH grant review panel for Centers for Agriculture Safety and Health Special Emphasis Panels
- **2022** Grant Reviewer for US EPA STAR Grant – "Cumulative Health Impacts at the Intersection of Climate Change, Environmental Justice, and Vulnerable Populations/Lifestages: Community-Based Research for Solutions"
- **2022** Lead of Plenary Speaker Subcommittee of the Conference of the International Societies of Exposure Science (ISES 2022) and Technical Organizing Committee Member
- **2021** Grant Reviewer for NIH Infectious, Reproductive, Asthma and Pulmonary Conditions Study Section
- **2021** Grant Reviewer for Northeast Center for Occupational Health and Safety
- **2021** Grant Reviewer for US EPA STAR Grant
- **2021** Grant Reviewer for NIOSH World Trade Center Registry Review
- **2021** Grant Reviewer for NIOSH Centers of Excellence for Total Worker Health
- **2021** Lead of Plenary Speaker Subcommittee of the Conference of the International Societies of Exposure

Science (ISES 2021) and Technical Organizing Committee Member

- **2020** Grant Reviewer for the UK Medical Research Council (MRC)
- **2020** Lead of Plenary Speaker Subcommittee of the Conference of the International Societies of Exposure Science (ISES 2020) and Technical Organizing Committee Member
- **2020** Grant Reviewer for American Heart Association
- **2020** Grant Reviewer for University of North Texas Health Science Center
- **2020** Book Proposal Reviewer for Elsevier
- **2019** Session Organizer of the Association of American Geographers (AAG) Annual Meeting
- **2019** Grant Reviewer for The University of Toledo
- **2019** Grant Reviewer for The University of Wisconsin-Milwaukee
- **2018** Program Committee Member and Session Chair of 4th International Conference on Big Data and Information Analytics, Houston
- **2018** Technical Organizing Committee of the Joint Conference of the International Society of Exposure Science and the International Society for Environmental Epidemiology (ISES-ISEE 2018)
- **2018** Book Proposal Reviewer for Elsevier
- **2017** Session Chair of the 27th Annual International Society of Exposure Science Conference
- **2016** Grant Reviewer for National Institute of Health (NIH)
- **2016** Grant Reviewer for Health Canada's Clean Air Regulatory Agenda (CARA) Program
- **2015 and 2016** Technical Organizing Committee of International Society of Exposure Science Annual Conference

Community Service

- **2022** Advisory Board Member for The New York Center for Agricultural Medicine and Health
- **2021** GIS Day Planning Committee organized by NYDOH and UAlbany
- **2020** Steering Committee Member of COVID-19 Houston Datathon
- **2016** Advisory Council Members of Air Alliance Houston

EDITORIAL BOARD

- 2023 - present Associate Editor: ***Science of the Total Environment***
- 2022 - present Associate Editor: ***Journal of Exposure Science and Environmental Epidemiology***
- 2018 - 2022 Editorial Board Member: ***Environmental Research***
- 2017 - 2022 Associate Editor/Editorial Board Member: ***BMC Public Health***
- 2016 - present Editorial Board Member: ***Environment International***

REVIEWER FOR

▪ Lancet	▪ Lancet Planetary Health
▪ Nature Communications	▪ Science Advances
▪ Annals of Internal Medicine	▪ Journal of the American Statistical Association
▪ Environmental Health Perspective	▪ Journal of Environmental and Public Health
▪ Environmental Science and Technology	▪ Natural Hazards
▪ Environment International	▪ Air Quality, Atmosphere and Health
▪ Environmental Research	▪ International Society of Exposure Science & International Society of Environmental Epidemiology Joint Annual Conference (2008, and 2013)
▪ Environmental Pollution	▪ Journal of Environmental Monitoring
▪ Journal of Exposure Science and Environmental Epidemiology	▪ Disasters
▪ Science of the Total Environment	

- Journal of the Air and Waste Management Association
- Geocarto International
- Plos One
- Geoinformatics & Geostatistics: An Overview
- International Journal of Environmental Research and Public Health
- Annals of the New York Academy of Sciences
- Earth-Science Reviews
- International Journal of Biometeorology
- Indoor Air
- Environmental Health
- Journal of Cleaner Production
- Archives of Environmental and Occupational Health
- Weather, Climate and Society
- Atmosphere
- Journal of Public Health
- Health and Place
- Journal of Transport Geography
- Annals of Epidemiology

PROFESSIONAL AFFILIATIONS

- International Society of Exposure Science
- American Heart Association
- International Society for Environmental Epidemiology