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### 1. Education

2007 Ph.D. in Environmental Health Sciences, University of Michigan, Ann Arbor, Michigan, USA

2001 M.S. in Environmental Engineering, Nankai University, Tianjin, China

1998 B.S. in Environmental Sciences, Nankai University, Tianjin, China

### 2. Professional Appointments

2015- Associate Professor, School of Public Health, University of Memphis, Memphis, TN

2009-2015 Assistant Professor, School of Public Health, University of Memphis, Memphis, TN

2009- Graduate Faculty, University of Memphis, Memphis, TN

2007-2009 Postdoc, School of Public Health, University of Michigan, Ann Arbor, MI

2002-2007 Research Assistant, School of Public Health, University of Michigan, Ann Arbor, MI

2001-2002 Research Associate, College of Environmental Sciences & Engineering,  
Nankai University, Tianjin, China

Engineer, Institute of Environmental Planning and Assessment,  
Nankai University, Tianjin, China

### 3. Research Interests

Air pollution; Exposure assessment; Risk assessment; Sampling and analytical methods for air pollutants; Indoor air quality (IAQ); Healthy homes; Environmental disparity; Environmental Tobacco Smoke (ETS).

### 4. Research Projects

#### 4.1 Ongoing Research Support

HUD Diana Hernandez (PI) 11/01/16-10/30/19

Evaluating Compliance and Refining Enforcement of Smoke-free Housing Policy in Low-Income Multiple Unit Housing

Role: Co-investigator

EPA XA-00D42616 Shelby County Health Department (PI) 05/12/16-09/30/19

Characterizing Community Exposure to Polycyclic Aromatic Hydrocarbons (PAHs) in a Tri-State Area

Role: Proposal developer and subcontract PI

JPB Foundation-Harvard University Jia (PI) 10/01/14-02/28/19

Fellow of JPB Environmental Health Fellowship Program

University of Memphis Chunrong Jia (PI) 11/01/18-12/31/19

Memphis Environmental Health Research Community (MEHRC)

## 4.2 Completed Research Support

Harvard University Dusty Dorm Study	Jia (PI)	07/01/17-06/30/18
FedEx Institute of Technology Developing a Modular Unmanned Aerial Vehicle (UAV) Platform for Air Pollution Profiling and Emergency Monitoring	Jia (PI)	04/01/17-12/31/18
City of Memphis Linking Home Energy Insecurity to the Built Environment and Population Health in Memphis	Jia (PI)	12/01/16-08/31/17
Memphis Research Consortium Interaction of Weight Status and Environmental Exposure on Effectiveness of In-Home Asthma Intervention	Jia & Banerjee (PI)	01/01/15-12/31/16
EPA XA-95490112 Reducing Exposure to Airborne Chemical Toxics (REACT) via Community-Scale Air Monitoring in Memphis Role: Proposal developer and subcontract PI	Shelby County Health Department (PI)	04/01/12-03/31/16
Genvax & Kael, Inc. Monitoring Airborne Siloxanes in Semiconductor Fabrication Plants	Jia (PI)	04/01/12-09/30/12
Center for Health Equity Research and Promotion Environmental Inequity and Skewed Risks: Differential Distributions of Ambient Air Toxics in Memphis.	Jia (PI)	04/01/11-09/30/12
Benjamin L. Hooks Institute for Social Change Socioeconomic and Racial Disparities in Cancer Risk from Air Toxic Exposure in Memphis.	Jia (PI)	05/01/11-04/30/12
FedEx Institute of Technology Equipment Acquisition for Memphis Research and Innovation Expo	Jia (PI)	09/01/11-10/31/11
Health Effects Institute/EPA Modeling and Analysis of Personal Exposure to Pollutant Mixtures: Further Analysis of the RIOPA Data Role: Proposal developer and subcontract PI	Batterman (PI)	09/01/10-12/31/12
University of Memphis Faculty Research Grant Indoor Environmental Quality in University Buildings and Indoor Air Symptoms	Jia (PI)	05/01/10-04/30/11

## 4.3 As advisee

- (1) 2008-2010 A Community Based Participatory Research Intervention for Childhood Asthma Using Air Filters and Air Conditioners, National Institutes of Health. Role: Key member.
- (2) 2008-2010 Critical Review of the Sources and Exposure Levels of Benzene, Toluene, Xylene and Naphthalene relevant to Canadian Residential Indoor Environments, Health Canada. Role: Co-investigator.

- (3) 2007-2008 Relationship between Personal Exposures to VOCs and Behavioral, Socioeconomic, Demographic Characteristics: Analysis of the NHANES VOC Project Data Set, National Urban Air Toxics Research Center. Role: Key member.
- (4) 2006-2008 Emissions of Flame Retardants from Industrial and Commercial Sources in the Great Lakes Region, Environmental Protection Agency. Role: Key member.
- (5) 2005-2007 Emissions of PDBE's from Urban Sources in the Great Lakes Region, Environmental Protection Agency. Role: Key member.
- (6) 2003-2007 Ambient, Indoor, Personal and Breath Concentrations of Volatile Organic Air Toxics among Populations in Industrial, Urban and Suburban Neighborhoods, American Chemistry Council. Role: Key member.
- (7) 2003-2006 Health, Pollution and Economic Development in South Durban, South Africa, National Institutes of Health. Role: Key member.
- (8) 2003-2004 Exposure Assessment and Occupant Health and Comfort among Teachers in Schools and at Home, NIOSH Education and Research Center. Key member.
- (9) 2001-2002 Emission of Ammonia from Concrete Walls Using Environmental Chamber, Wanke Building Ltd. Co., China. Role: Co-investigator.
- (10) 2001-2002 Research on indoor air pollution and assessment system of ecological building materials, Tianjin Construction Committee, Tianjin, China. Role: Co-investigator.
- (11) 2001-2002 Environmental Planning in Tianjin Port, Tianjin Port, Tianjin, China. Role: Co-investigator.
- (12) 1999-2002 China-Canada Cooperation Project: 3x3 Beijing-Tianjin Water Resources Management Project (Environmental Impact Sub-project). Role: Key member.
- (13) 1997-1998 Environmental Impact Assessment of Improving International Container Multi-model Transportation System Loaned by the World Bank, World Bank. Role: Key member.

## 5. Publications

### 5.1 Journal Articles (\*: Corresponding author)

- (1) Gu, Q., Michanowicz, R. D., **Jia, C\***, 2018. Developing a modular unmanned aerial vehicle (UAV) platform for air pollution profiling. *Sensors*, 18(12), 4363.
- (2) Xu, J., He, J., Xu, H., Ji, D., Snape, C., Yu, H., **Jia, C**, Wang, C., Gao, J., 2018. Simultaneous measurement of multiple organic tracers in fine aerosols from biomass burning and fungal spores by HPLC-MS/MS. *RSC Advances* 8, 34136-34150.
- (3) Kponee KZ, Nwanaji-Enwerem JC, Fu XQ, Kakulu II, Weisskopf MG, **Jia CR**. 2018. Elevated indoor volatile organic compound exposure in the Niger Delta Region of Nigeria. *International Journal of Environmental Research and Public Health*. 15(9):1939.
- (4) Higgins D, Pal C, Sulaiman IM, **Jia CR**, Zerwekh T, Dowd SE, Banerjee P. 2018. Application of high-throughput pyrosequencing in the analysis of microbiota of food commodities procured from small and large retail outlets in a U.S. metropolitan area – A pilot study, *Food Research International*. 105: 29-40.
- (5) **Jia CR\***, Fu XQ. 2017. Diffusive uptake rates of volatile organic compounds on standard ATD tubes for environmental and workplace applications. *Environments*. 4(4): 87.
- (6) Liu B, Xue ZQ, Zhu XL, **Jia CR\***. 2017. Long-term trends (1990-2014), health risks, and sources of atmospheric polycyclic aromatic hydrocarbons (PAHs) in the U.S. *Environmental Pollution*. 220: 1171-1179.

As of July/August 2018, this highly cited paper received enough citations to place it in the top 1% of the academic field of Environment/Ecology based on a highly cited threshold for the field and publication year.

- (7) Liu B, **Jia CR**. 2016. Effects of profession on urinary PAH metabolite levels in the US population. *International Archives of Occupational and Environmental Health*. 89(1): 123-135.
- (8) Liu B, **Jia CR**. 2015. Effects of exposure to mixed volatile organic compounds on the neurobehavioral test performance in a cross-sectional study of US adults. *International Journal of Environmental Health Research*. 25(4): 349-363.
- (9) **Jia CR\***, James W, Kedia S. 2014. Relationship of racial composition and cancer risks from air toxics exposure in Memphis, Tennessee, U.S.A. *International Journal of Environmental Research and Public Health*. 11(8): 7713-7724.
- (10) **Jia CR\***, Ward KD, Mzayek F, Relyea F. 2014. Blood 2,5-dimethylfuran as a sensitive and specific biomarker for cigarette smoking. *Biomarkers*. 19(6): 457-462.
- (11) Batterman S, Su F-C, Li S, Mukherjee B, **Jia C**. 2014. Personal Exposure to Mixtures of Volatile Organic Compounds: Modeling and Further Analysis of the RIOPA Data. Research Report 181. Boston, MA: Health Effects Institute.
- (12) **Jia CR\***, Foran JA. 2013. Air toxics concentrations, source identification, and health risks: An air pollution hot spot in Southwest Memphis, TN. *Atmospheric Environment*. 81: 112-116.
- (13) Foran JA, **Jia CR**. 2013. Decisional inconsistencies in the management of contaminated, sport-caught fish. *Journal of Health and Human Services Administration*. 36(2): 208-227.
- (14) Chin J-Y, Godwin C, **Jia CR**, Robins T, Lewis T, Parker E, Max P, Batterman S. 2013. Concentrations and risks of p-dichlorobenzene in indoor and outdoor air. *Indoor Air*. 23(1): 40-49.
- (15) **Jia CR\***, Batterman S, Relyea GE. 2012. Variability of indoor and outdoor VOC measurements: An analysis using variance components. *Environmental Pollution*. 169: 152-159.
- (16) James W, **Jia CR\***, Kedia S. 2012. Uneven magnitude of disparities in cancer risks from air toxics. *International Journal of Environmental Research and Public Health*. 9(12): 4365-4385.
- (17) Su F-C, **Jia CR**, Batterman S. 2012. Extreme value analyses of VOC exposures and risks: A comparison of RIOPA and NHANES datasets. *Atmospheric Environment*. 62: 97-106.
- (18) **Jia CR\***, Yu XH, Maziak W. 2012. Blood/air distribution of volatile organic compounds (VOCs) in a nationally representative sample. *Science of the Total Environment*. 419: 225-232.
- (19) Zhu XL, **Jia CR\***. 2012. Apportioning variability of polycyclic aromatic hydrocarbons (PAHs) and chlordanes in indoor and outdoor environments. *Journal of Environmental Monitoring*. 14: 1926-1934
- (20) Batterman S, Chin J-Y, **Jia CR**, Godwin C, Parker E, Robins T, Max P, Lewis T. 2012. Sources, concentrations and risks of naphthalene in indoor and outdoor Air. *Indoor Air*. 22(4): 266-278.
- (21) Lee J-H, **Jia CR\***, Kim Y-D, Kim H-H, Pham T-T, Choi Y-S, Seo Y-Y, Lee I-W. 2012. An optimized adsorbent sampling combined to thermal desorption GC-MS method for trimethylsilanol in industrial environments. *International Journal of Analytical Chemistry*. Vol 2012, Article ID 690356: 1-10.
- (22) Batterman S, Su F-C, **Jia CR**, Naidoo RN, Robins T, Naik I. 2011. Manganese and lead in children's blood and airborne particulate matter in Durban, South Africa. *Science of the Total Environment*. 409: 1058-1068.
- (23) **Jia CR**, Batterman S, Godwin C, Charles S, Chin J-Y. 2010. Sources and migration of VOCs in mixed-use buildings. *Indoor Air*. 20(5): 357-369.
- (24) **Jia CR**, Batterman S, D'Souza J. 2010. Copulas and other multivariate models of personal exposures to VOC mixtures. *Human and Ecological Risk Assessment* 16(4): 873-900.
- (25) **Jia CR**, Batterman S. 2010. A critical review of sources and exposures of naphthalene relevant to indoor and outdoor air. *International Journal of Environmental Research and Public Health*. 7(7): 2903-2939.

- (26) Batterman S, Godwin C, Chernyak S, **Jia CR**, Charles S. 2010. Brominated flame retardants in offices in Michigan, U.S.A. *Environment International*. 36: 548-556.
- (27) Batterman S, Chernyak S, **Jia CR**, Godwin C, Charles S. 2009. Concentrations and emissions of polybrominated diphenyl ethers from U.S. houses and garages. *Environmental Science & Technology*, 43 (8): 2693–2700.
- (28) D'Souza JC, **Jia CR**, Mukherjee B, Batterman S. 2009. Ethnicity, Housing and personal factors as determinants of VOC exposures. *Atmospheric Environment*, 43(18): 2884-2892.
- (29) Batterman S, Chernyak S, **Jia CR**, Charles S, Godwin C. 2008. Trends and mass balance of flame retardant chemicals in a new building. *Organohalogen Compounds*, 70: 693-696.
- (30) Chernyak S, Konoplev A, Batterman S, Kochetkov A, Pasynkova E, Samsonov D, **Jia CR**. 2008. PBDES in ambient and indoor air in four locations in the Russian Federation. *Organohalogen Compounds*, 70: 2163-2166.
- (31) **Jia CR**, D'Souza J, Batterman S. 2008. Distributions of personal VOC exposures: A population-based analysis. *Environment International*.34: 922-931.
- (32) **Jia CR**, Batterman S, Godwin C. 2008. VOCs in industrial, urban and suburban neighborhoods: Part 1: indoor and outdoor concentrations, variation, and risk drivers. *Atmospheric Environment*. 42(9): 2083-2100.
- (33) **Jia CR**, Batterman S, Godwin C. 2008. VOCs in industrial, urban and suburban neighborhoods: Part 2: factors affecting indoor and outdoor concentrations. *Atmospheric Environment*. 42(9): 2101-2116.
- (34) Charles SM, **Jia CR**, Batterman S, Godwin C. 2008. VOC and particulate emissions from commercial cigarettes: Analysis of 2,5-DMF as an ETS tracer. *Environmental Science & Technology*, 42: 1324-1331.
- (35) **Jia CR**, Batterman S, Godwin C. 2007. Continuous, intermittent and passive sampling of airborne VOCs. *Journal of Environmental Monitoring*, 9: 1220-1230.
- (36) Chernyak SM, Batterman SA, Godwin CC, **Jia CR**, Charles S. 2007. Evolution of flame retardant chemicals in a newly constructed building. *Organohalogen Compounds*, 69: 994-997.
- (37) Batterman S, Chernyak S, Gwynn E, Cantonwine D, **Jia CR**, Begnoche L, Hickey JP. 2007. Trends of brominated diphenyl ethers in fresh and archived Great Lakes fish (1979-2005). *Chemosphere*, 69: 444-457.
- (38) Charles S, Batterman S, **Jia CR**. 2007. Composition and emissions of VOCs in main- and side-stream smoke of research cigarettes. *Atmospheric Environment*, 41: 5371-5384.
- (39) Zhong Q, Veeneman RA, Steinecker WH, **Jia CR**, Batterman SA, Zellers ET. 2007. Rapid determination of ETS markers with a prototype field-portable GC employing a microsensor array detector. *Journal of Environmental Monitoring*, 9: 440-448.
- (40) Batterman S, **Jia CR**, Hatzivailis G. 2007. Migration of volatile organic compounds from attached garages to residences: A major exposure source. *Environmental Research*, 104: 224-240.
- (41) Chernyak S, Batterman S, Gwynn E, **Jia CR**, Begnoche L. 2006. Temporal (1983-2005) and spatial trends of polybrominated diphenyl ethers in Great Lakes rainbow smelt and lake trout. *Organohalogen Compounds*, 68: 716-719.
- (42) Lee JH, Batterman S, **Jia CR**, Chernyak S. 2006. Ozone artifacts and carbonyl measurements using Tenax GR, Tenax TA, Carbopack B and Carbopack X Adsorbents. *Journal of The Air & Waste Management Association*, 56 (11): 1503-1517.
- (43) **Jia CR**, Batterman S, Chernyak S. 2006. Development and comparison of methods using MS scan and selective ion monitoring modes for a wide range of airborne VOCs. *Journal of Environmental Monitoring*, 8 (10): 1029-1042.

- (44) Batterman S, **Jia CR**, Hatzivasilis G, Godwin C. 2006. Simultaneous measurement of ventilation using tracer gas techniques and VOC concentrations in homes, garages and vehicles. *Journal of Environmental Monitoring*, 8 (2): 249-256.
- (45) Batterman S, Hatzivasilis G, **Jia CR**. 2006. Concentrations and emissions of gasoline and other vapors from residential vehicle garages. *Atmospheric Environment*, 40 (10): 1828-1844.
- (46) Batterman S, Godwin C, **Jia CR**. 2005. Long duration tests of room air filters in cigarette smokers' homes. *Environmental Science & Technology*, 39 (18): 7260-7268.
- (47) Batterman S, Yu Y, **Jia CR**, Godwin C. 2005. Non-methane hydrocarbon emissions from vehicle fuel caps. *Atmospheric Environment*, 39 (10): 1855-1867.
- (48) Zhao J, **Jia CR**, Zhu T. 2006. Toxicity and indoor air limits of tolylene diisocyanate. *Journal of Environment and Health*, 23 (1): 91-93. (In Chinese)
- (49) Wu J, **Jia CR**. 2002. Total control of water pollutant discharge in Tianjin Port. *Transportation Environmental Protection*, (6). (In Chinese)
- (50) Bai Z, Wang Z, **Jia CR**, Zhang L, Zhu T. 2002. Modeling emissions of ammonia from indoor concrete walls using an environmental chamber. *China Environmental Science*, 23 (2): 117-121. (In Chinese)
- (51) Bai Z, **Jia CR**, Wang Z, Zhu T. 2000. Human exposures and doses to indoor/outdoor air pollutants. *Journal of Environment and Health*, 19 (6): 425-428. (In Chinese)
- (52) Zhu T, **Jia CR**, Yan Y, Lin L. 2000. Proposals on compiling the section of total control in EIA. *Environmental Protection*, (3): 23-25. (In Chinese)
- (53) Xu H, Zhu T, **Jia CR**. 2000. Development of strategic environmental assessment in China - regional environmental assessment. *Urban Environment & Urban Ecology*, 13 (3): 4-7. (In Chinese)
- (54) Zhu T, Yan Y, Shan CY, Xu H, **Jia CR**. 2000. The technology of landscape impact assessment. *China Environmental Science*, 20(1): 86-90. (In Chinese)
- (55) **Jia CR**. 1999. Building Environmental Assessment in Hong Kong. *Environmental Protection*, (6): 34-36. (In Chinese)
- (56) Xu H, **Jia CR**, Zhu T, Dai S. 1999. Habitat-based Methods in Ecological Impact Assessment. *Urban Environment & Urban Ecology*, 12 (6): 50-53. (In Chinese)
- (57) Xu H, **Jia CR**, Zhu T, Dai S. 1999. Research on Building Environmental Assessment. *Development of Environmental Technology*. China Environmental Science Press, Beijing, China, October 1999. (In Chinese)

## 5.2 Peer-reviewed Monographs and Research Reports

- (1) **Jia CR**, Fu XQ, Smith L, Rogers B. 2017. Quality Assurance Project Plan (QAPP) for Characterizing Community Exposure to Polycyclic Aromatic Hydrocarbons (PAHs) in a Tri-State Area. Report for US EPA.
- (2) Villa P, Vera L, Wylie S, Wilson S, Septoff A, **Jia CR**, Chong NS, Luong C. 2017. Hazards in the Air: Relating Reported Illnesses to Air Pollutants Detected near Oil and Gas Operations in and around Karnes County, Texas. EARTHWORKS Library, <https://www.earthworksaction.org/library>.
- (3) **Jia CR**, Chong N-S, Holt J, Rogers R, Smith L. 2016. Reducing Exposure to Airborne Chemical Toxics (REACT) via Community-Scale Air Monitoring in Memphis – Final Report. Report for US EPA.
- (4) **Jia CR**, Chong N-S, Holt J, Rogers R, Smith L. 2013. Quality Assurance Project Plan (QAPP): Reducing Exposure to Airborne Chemical Toxics (REACT) via Community-Scale Air Monitoring in Memphis. Report for US EPA.

- (5) **Jia CR**, Batterman S, 2009. Critical review of the sources and exposure levels of benzene, toluene, xylene and naphthalene relevant to Canadian residential indoor environments. Report for Health Canada.
- (6) Batterman S, Chernyak S, **Jia CR**, Godwin C, Charles S, Chen TC. 2008. Emissions of PBDEs from Urban Sources in the Great Lakes Region. Final Report for US EPA Project GL9659730.
- (7) **Jia CR**. 2007. Volatile organic compounds in industrial, urban, and suburban areas: Sources and exposures. Ph. D. Dissertation, University of Michigan, Ann Arbor, Michigan. ISBN: 9780549174936.
- (8) Batterman S, Gounden Y, Chernyak S, **Jia CR**, Le H, Matooane M, Jafta N, Merwe MVD. 2006. Air Pollutants in Durban, South Africa: Exposure Assessment and Health Risk Assessment.
- (9) Godwin C, Batterman S, **Jia CR**, Franzblau A, Gruszczynski T, Ellendula S. 2003. Exposure assessment and occupant health and comfort among teachers in schools and at home.
- (10) Zhang YF, Li XW, Liu HL, Bai ZP, Xi ZG, Zhang B, Ning SY, Chen GS, Wu SW, Liu HY, Ma YM, **Jia CR**. 2011. Indoor Decorating and Refurbishing Materials - Limits of Harmful Substances Emitted From Carpets, Carpet Cushions, and Adhesives. China National Standard, GB 18587-2001. General Administration of Quality Supervision, Inspection and Quarantine of the People Republic of China.
- (11) Xu H, Zhang L, **Jia CR**, Xu F, Xu W, Liao, H, Wang D. 1998. Environmental impact statements of improving international container multi-model transportation system. The World Bank Project.

### 5.3 Peer-Reviewed Conference Papers and Abstracts

- (1) Gu QJ, **Jia CR**. 2019. A consumer UAV-based air quality monitoring system for smart cities. IEEE-ICCE 2019. Las Vegas, NE, USA. January 11-13, 2019.
- (2) Ceballos D, Craig J, Fu XQ, **Jia CR**, Webster TF, Fruh V, Petropoulos Z, Vallarino J, MyDzung C, Allen J. 2018. Environmental and biological monitoring of volatile organic chemicals among nail technicians. The Joint Annual Meeting of the International Society of Exposure Science and the International Society for Environmental Epidemiology (ISEA-ISEE 2018). Ottawa, Canada. August 26-30, 2018.
- (3) **Jia CR**, Smith L. 2017. Monitoring for combustion-related air toxics in the Memphis Area. The 15th Annual National Environmental Justice Conference, Memphis, TN, October 14, 2017.
- (4) **Jia CR**, Chauhan B, Fu X, Xue Z, Mishra K, Kedia R, Banerjee P. 2017. Gas stations represent a nontrivial source of exposure to outdoor VOCs. 2017 Tennessee Environmental Conference. Kingsport, Tennessee, March 13-15, 2017.
- (5) **Jia CR**, Larry Smith. 2017. Reducing exposure to airborne chemical toxics. 2017 Tennessee Environmental Conference. Kingsport, Tennessee, March 13-15, 2017.
- (6) **Jia CR**, Ngee-Sing Chong, Jim Holt, Larry Smith. 2016. The Memphis Air Toxics Study. 2016 National Ambient Air Monitoring Conference. St. Louis, Missouri, August 8-11, 2016.
- (7) **Jia CR**, Larry Smith. 2016. Air Pollution and Your Health: Focus on Polycyclic Aromatic Hydrocarbons (PAHs). 2016 EPA Day. Memphis, TN. April 14, 2016.
- (8) **Jia CR**, Ngee-Sing Chong, Jim Holt, Larry Smith. 2015. Reducing Exposure to Airborne Chemical Toxics (REACT): Community-Scale Air Monitoring in Memphis. 2015 National Air Toxics Monitoring and Data Analysis Workshop. Research Triangle Park, NC. October 26-28, 2015.
- (9) Xue ZQ, Chong N-S, Yu XT, Holt J, **Jia CR**. 2015. Air toxics in Memphis: Levels, sources, and health risks. The 9th ISHVAC and 3rd COBEE joint conference. Tianjin, China, July 12-15, 2015.
- (10) **Jia CR**, Ward KD, Mzayek F, Relyea G. 2014. Blood 2,5-dimethylfuran as a sensitive and specific biomarker for cigarette smoking. International Society of Exposure Science 24th Annual Meeting. Cincinnati, OH, USA, October 12-16, 2014.

- (11) Liu B, **Jia CR**. 2014. Subtle neurocognitive effects associated with blood concentrations of common volatile organic compounds in US adults. New York City Epidemiology Forum First Annual Conference. New York City, NY, USA. February 28, 2014.
- (12) Tirumala A, Yu XT, Nguyen D, Seteh E, Ooi BG, Chong, N-S, **Jia CR**, Xue, ZQ, Holt J. 2014. Ambient air monitoring in Memphis and surrounding areas. The 66th Southeast Regional Meeting of the American Chemical Society, Nashville, TN, United States, October 16-19 (2014), SERMACS-698.
- (13) **Jia CR**, Foran JA. 2013. Air Toxics Concentrations, Source Identification, and Health risks: An air pollution hot spot in Southwest Memphis, TN. SETAC North America 34th Annual Meeting, Nashville, TN, USA, November 17-21, 2013.
- (14) Tirumala A, Chong NS, Ooi BG, **Jia CR**, Xue ZQ, Holt J. 2013. Development of a GC-MS method for the analysis of ambient air toxics from industries and biogenic terpenes. The Southeast Regional Meeting of the American Chemical Society 2013, Atlanta, GA, USA, November 13-16, 2013.
- (15) **Jia CR**, Doherty R, Low J, Holt J, Rogers R. 2013. Risk assessment of ambient air toxics at a potential "hot spot" in Memphis, Tennessee. Environmental Health 2013, Boston, MA, USA, March 3-6, 2013.
- (16) Su F-C, **Jia CR**, Batterman S. 2012. Extreme value analysis of personal VOC exposures. The Air & Waste Management Association's Annual Conference & Exhibition, San Antonio, TX, June 19-22, 2012.
- (17) James W, **Jia CR**, Kedia S. 2012. Socioeconomic status, race, and cancer risks due to inhalation of air toxics in Cancer Alley, LA. 75th Annual Meeting of the Southern Sociological Society. New Orleans, LA, March 21-24, 2012.
- (18) James W, **Jia CR**. 2011. Socioeconomic and racial disparities in cancer risk from air toxics exposures in the Delta Region. Southern Demographic Association 2011 Annual Meeting. Tallahassee, FL, October 19-21.
- (19) **Jia CR**. 2011. Socioeconomic and racial disparities in cancer risk from air toxics exposure in Memphis. CHEER Conference: Empowering Communities to Create a Healthy Village. University of Tennessee Health Science Center, Memphis, TN, June 20-22.
- (20) **Jia CR**, Batterman S, Su FC. 2011. Modeling exposures to indoor air pollutant mixtures: Application of copula methods to the RIOPA data. Indoor Air 2011. Austin, TX, June 5-10. Paper #354.
- (21) **Jia CR**, Batterman S, Relyea GE. 2011. Variance components of indoor and outdoor VOC concentrations. Indoor Air 2011. Austin, TX, June 5-10. Paper #286.
- (22) Batterman S, Chin J-Y, **Jia CR**, Godwin C, Parker E, Robins T, Max P, Lewis T. 2011. A review and update of naphthalene exposures, including recent data from Michigan homes. Indoor Air 2011. Austin, TX, June 5-10. Paper #453.
- (23) Batterman SA, Su F-C, Mukherjee B, **Jia CR**. 2011. Modeling and analysis of personal exposure to pollutant mixtures: further analysis of the RIOPA data including extreme value distributions and factor analyses of pollutant data. Health Effects Institute 2011 Annual Conference, Boston, MA, May 1 - 3, 2011.
- (24) Denning P, **Jia CR**. 2010. Ventilation Conditions in University Offices and Classrooms - a Pilot Study. Tennessee Public Health Association Annual Meeting. Franklin, TN. September 15-17, 2010.
- (25) Batterman SA, Mukherjee B, Su F-C, **Jia CR**, D'Souza J. 2010. Modeling and analysis of personal exposure to pollutant mixtures: Further analysis of the RIOPA data. Health Effects Institute 2010 Annual Conference, Alexandria, Virginia, April 25 - 27, 2010.



- (26) Chin J-Y, Godwin C, **Jia CR**, Batterman SA. 2009. Migration of vehicle-related emissions to offices using tracers: Case study at a bus repair facility. *Healthy Buildings 2009*. Syracuse, NY, USA. September 13-17, 2009, Paper #540.
- (27) **Jia CR**, Batterman S, Godwin C, Charles S, Chin J-Y. 2009. Air exchanges rates and VOC sources in offices, industrial and commercial settings. *The Air & Waste Management Association's Annual Conference & Exhibition*, Detroit, Michigan, June 16-19, 2009, Paper #176.
- (28) **Jia CR**, Batterman S, Godwin C. 2008. Indoor and outdoor concentrations of VOCs and their determinants in industrial, urban and suburban neighborhoods. *Proceedings of Indoor Air 2008*, Copenhagen, Denmark, August 17-22, Paper #887.
- (29) Batterman S, Chernyak S, Charles S, Godwin C, **Jia CR**. 2008. Evolution of brominated flame retardant chemicals in dust, air and HVAC filters in a newly constructed multi-use building. *Proceedings of Indoor Air 2008*, Copenhagen, Denmark, August 17-22, Paper #885.
- (30) **Jia CR**. Volatile organic compound mixtures in human breath: Monitoring and data interpretation. *Workshop on New Directions and Advances in Biological and Chemical Exposure Assessment for Epidemiologic and Risk Characterization*. University of California, Los Angeles. July 10-11, 2008.
- (31) Batterman S, Chernyak S, Charles S, Godwin C, **Jia CR**. 2008. Evolution of brominated flame retardant chemicals in dust, air and HVAC filters in a newly constructed multi-use building. *Proceedings of Indoor Air 2008*, Copenhagen, Denmark, August 17-22, Paper #885.
- (32) Batterman S, **Jia CR**, Godwin C. 2007. Determinants of VOC exposures and mixtures: Review of distributions of VOCs in indoor and outdoor air, factors affecting concentrations, and statistical analysis of high-end mixtures and their sources (Invited Presentation). *The 17th Annual Meeting of the International Society of Exposure Analysis (ISEA)*, Durham, NC, USA, October 14-18, 2007.
- (33) **Jia CR**, Batterman S, Godwin C. 2007. Exposures to VOC mixtures in residences: A field study and probabilistic analysis. *The 17th Annual Meeting of the International Society of Exposure Analysis (ISEA)*, Durham, NC, USA, October 14-18, 2007.
- (34) You Y, Bai Z, **Jia CR**, Wan Z; Ran W, Zhang J. 2007. Measuring air exchanges rates using continuous CO<sub>2</sub> sensors. *Proceedings CLIMA 2007 - Wellbeing Indoors*, Helsinki, Finland, June 10-14, 2007.
- (35) You Y, Bai Z, **Jia CR**, Ran W, Zhang J, Hu X, Yang J. 2007. Ventilation conditions of different indoor environments in a university. *Proceedings CLIMA 2007 - Wellbeing Indoors*, Helsinki, Finland, June 10-14, 2007.
- (36) Batterman S, Godwin C, **Jia CR**. 2006. Design and evaluation of a new breath monitoring system for volatile organic compounds. *International Council of Chemical Association (ICCA) Biomonitoring Workshop*, Minneapolis, MN, USA, July 26-27, 2006.
- (37) Batterman S, **Jia CR**, Godwin C, Hatzivasilis G. 2006. A dominant source of VOC exposure: attached garages. *International Conference on Environmental Epidemiology & Exposure*, Paris, France, September 2-6, 2006.
- (38) Batterman S, **Jia CR**, Hatzivasilis G. 2006. Simultaneous measurement of air exchange and VOC concentrations: application in vehicles, houses and garages. *Air & Waste Management Association 99th Annual Conference & Exhibition*, New Orleans, LA, USA, June 20-23, 2006: paper #206.
- (39) Batterman S, **Jia CR**, Chernyak S, Gounden Y. 2005. Exposure assessment for toxic air pollutants in Durban, South Africa. *Epidemiology*. 16 (5): S129-S130.
- (40) Jafta N, Gqaleni N, Batterman S, Naidoo R, Robins T, **Jia CR**. 2005. Indoor air quality of selected residences in South Durban compared to north Durban. *Epidemiology*. 16 (5): S129-S129.

- (41) **Jia CR**, Batterman S, Godwin C, Hatzivasilis G. 2005. Distributions of volatile organic compounds (VOCs) in indoor and outdoor air among industrial, urban and suburban neighborhoods. *Proceedings of Indoor Air 2005*, Beijing, China, September 4-9, 2005: 2194-2199.
- (42) **Jia CR**, Batterman S, Chernyak S. 2005. Development of a sensitive thermal desorption GC-MS method using selective ion monitoring for a wide range of VOCs. *Proceedings of Indoor Air 2005*, Beijing, China, September 4-9, 2005: 2630-2634.
- (43) **Jia CR**, Batterman S, Godwin C. 2004. Levels and sources of VOC exposures in microenvironments: a Monte Carlo analysis. *The 14th Annual Conference of the International Society of Exposure Analysis (ISEA)*, Philadelphia, PA, USA, October 17-21, 2004: pp37.
- (44) Bai Z, Dong Y, Wang Z, Zhu T, **Jia CR**. 2004. Emission of ammonia from indoor concrete wall and its human exposure assessment. *The 14th Annual Conference of the International Society of Exposure Analysis (ISEA)*, Philadelphia, PA, USA, October 17-21, 2004: pp163.
- (45) Batterman S, **Jia CR**, Godwin C. 2004. Sources and significance of VOC exposures in microenvironments: schools, offices, residences, outdoors, and vehicles. *Air & Waste Management Association 97th Annual Conference & Exhibition*, Indianapolis, IN, USA, June 2004, paper #457.
- (46) Batterman S, Yu Y, **Jia CR**, Godwin C. 2004. Evaporative Emissions from Vehicle Fuel Caps, *Air & Waste Management Association 97th Annual Conference & Exhibition*, Indianapolis, IN, USA, June 2004, paper #264.
- (47) Batterman S, Godwin C, Franzblau A, **Jia CR**, Ellendula S, Corsi R, Torres V, Sanders M. 2003. IAQ and ventilation in Michigan and Texas schools. *13th Annual Conference of the International Society of Exposure Analysis (ISEA)*, Stresa, Italy, September 21-25, 2003.
- (48) Bai Z, **Jia CR**, Tan C, Zhang J. 2002. Developing national standards to reduce exposures to harmful substances contained in indoor decorating and construction materials in China. *Epidemiology*, 13 (4): 923.
- (49) Zhu T, Bai Z, **Jia CR**. Role of environmental risk assessment (ERA) in environmental impact assessment (EIA) and its application in China. *The Second Asian Symposium on Risk Assessment and Management (SASRAM)*, Kobe, Japan, November 23 - 25, 2001.
- (50) Bai Z, **Jia CR**, Zhang J. Indoor air quality related standards in China. *Proceedings of Indoor Air 2002*, Monterey, CA, USA, June 30-July 05, 2002.
- (51) Zhu T, Lin L, **Jia CR**. 2000. Application of information technology in environmental impact assessment. *International Symposium of Environmental Impact Assessment Textbook*, Asian Development Bank and National Environmental Protection Agency of China, Shanghai, China, October 2000.
- (52) Zhu Tan, Bao J, **Jia CR**. Towards sustainable development: regional environmental impact assessment, *International Symposium of Environmental Impact Assessment Textbook*, Asian Development Bank and National Environmental Protection Agency of China, Shanghai, China, October 1999.

## 6. International, National, and Regional Committees

2016-2017    Healthy Building Network. HAMP Advisory Committee. Member

## 7. Review for Journals

### Editorial board:

*Journal of Environmental and Public Health*

**Ad-hoc reviewer for:**

- (1) *Air Quality, Atmosphere and Health*
- (2) *Atmospheric Environment*
- (3) *Atmospheric Research*
- (4) *Biological Trace Element Research*
- (5) *Biomass & Bioenergy*
- (6) *Building and Environment*
- (7) *Bulletin of Environmental Contamination and Toxicology*
- (8) *Cancer Epidemiology, Biomarkers & Prevention*
- (9) *Chemosphere*
- (10) *Environmental Engineering and Management Journal*
- (11) *Environment International*
- (12) *Environmental Pollution*
- (13) *Environmental Science: Processes & Impacts*
- (14) *Environmental Science & Technology*
- (15) *Environmental Research*
- (16) *Indoor Air*
- (17) *International Journal of Environmental Research and Public Health*
- (18) *International Journal of Environmental Analytical Chemistry*
- (19) *Journal of Air & Waste Management Association*
- (20) *Journal of Exposure Science and Environmental Epidemiology*
- (21) *Journal of Maps*
- (22) *Risk Analysis*
- (23) *Science of the Total Environment*

**8. Membership**

International Society of Indoor Air Quality and Climate, 12/11/2009-04/15/2012

International Society of Exposure Science, 05/01/2010-04/30/2011

Air & Waste Management Association, 06/23/2009-06/22/2010

Society for Research on Nicotine and Tobacco, 01/01/2012-12/31/2012

Global Health Council

**9. Honors and Awards**

- |      |   |
|------|---|
| 2018 | PI Millionaire, University of Memphis   |
| 2016 | Smart City Research Fellow, FedEx Institute of Technology, University of Memphis  |
| 2014 | Harvard University JPB Environmental Health Fellow  |
| 2014 | Second Place, University of Memphis Tiger Blue Goes Green 2014 Faculty Research Competition   |
| 2013 | First-time Principle Investigator, University of Memphis  |
| 2012 | 2012 Increasing Diversity in Nicotine and Tobacco Research Travel Scholarship, Society for Research on Nicotine and Tobacco.  |
| 2009 | Nominee, Young Professional (YP) Best Paper Award, The Air & Waste Management Association's 2009 Annual Conference & Exhibition, Detroit, Michigan, June 16-19, 2009. |
| 2006 | "High impact" article with cover photo in <i>Journal of Environmental Monitoring</i>  |
| 2005 | University of Michigan Rackham International Conference Grant   |
| 2004 | Best Paper of <i>China Environmental Science</i> in 2003  |
| 2001 | Excellent Master's Thesis of Nankai University  |

**10. Invited presentations**

- 01/10/2019 Community-scale Air Toxics Monitoring Studies in Memphis. Air Quality Seminar, Kansas State University. Kansas City, MO.

- 06/28/2018 Trends, Sources and Risks of Atmospheric PAHs. University of Nottingham Ningbo China.
- 03/08/2017 Indoor Air Pollution and Health, Valuating the Health, Social, and Building Systems Resilience Benefits of Weatherizing Affordable Multifamily Housing. Chicago, IL.
- 11/07/2015 Monitoring Air Emissions in Memphis, Sierra Club 2015 National Environmental Justice Conference. Memphis, TN.
- 03/12/2015 Assessing Human Exposure to Air Pollutants in Different Environments. Louisiana State University Super Fund Center, Baton Rouge, LA.
- 11/01/ 2014 Reducing Exposure to Airborne Chemical Toxics (REACT): Community-Scale Air Monitoring in Memphis. Sierra Club 2014 National Environmental Justice Conference. Memphis, TN.
- 06/20/2014 Update on Shelby County Air Toxics Study and New Environmental Justice Initiatives in Air Permitting. The Memphis Chapters of ASSE, AIHA, and MCAHMP, Memphis, TN.
- 05/24/2013 Variability, Determinants, and Sources of Volatile Organic Compounds (VOCs) in Indoor and Outdoor Air, Nankai University, Tianjin, China.
- 05/22/2013 Risk Assessment and Environmental Disparities of Exposure to Air Toxics, Nankai University, Tianjin, China.
- 05/16/2013 Variability, Determinants, and Sources of Volatile Organic Compounds (VOCs) in Indoor and Outdoor Air, China Research Academy of Environmental Science, Beijing, China.
- 05/15/2013 Variability, Determinants, and Sources of Volatile Organic Compounds (VOCs) in Indoor and Outdoor Air, China Petroleum University, Beijing, China.
- 09/17/2012 “Reducing Exposure to Airborne Chemical Toxics (REACT)”, Memphis stakeholders, Memphis, TN
- 04/30/2012 “Reducing Exposure to Airborne Chemical Toxics (REACT)”, Engineers’ Club of Memphis, Memphis, TN.
- 03/22/2012 “Health Effects and Measurements of Particle Pollution”, Physics Seminar, Department of Physics, University of Memphis.
- 10/04/2011 “Transportation and Environmental Health Disparity: Uneven Distributions of Traffic-Related Air Pollution and the Associated Cancer Risks in Memphis”, Tiger Blue Goes Green, University of Memphis.
- 02/04/2010 “Human Exposure to Airborne Volatile Organic Compounds: Measurements, Determinants, Risks, and Future Studies”, Public Health Research Series, School of Public Health, University of Memphis.

## **11. Media**

- 08/22/2013 Interviewed by WYPL TV regarding Memphis Air Toxics Study
- 10/27/2011 Green snapshots in *The Commercial Appeal*

## **12. Teaching**

- 2015- PUBH 7129 Environmental Sampling & Analysis, University of Memphis
- 2010- PUBH 7120 Environmental Health I, University of Memphis
- 2011- PUBH 7120 Environmental Health I-Online, University of Memphis
- 2010- PUBH 7203 Principles of Exposure and Risk Assessment, University of Memphis
- 2010 PUBH 7122 Environmental Health II, University of Memphis
- 1999 Environmental Impact Assessment, Nankai University, China

## **13. Mentoring / Advising**

### **13.1 Post-doctoral researchers**

- Xianqian Fu, Ph.D. in Environmental Science, 2016-

### **13.2 Dissertation, thesis and project committees**

Co-chair	Mark'Quest Ajoku, Ph.D. student in Epidemiology. 2018-
Chair	Zhuqing Xue, Ph.D. student, School of Public Health. 2013-2018 Dissertation: "Human Exposure to Air Toxics in Urban Environments: Health Risks, Sociodemographic Disparities, and Mixture Profiles" First place, 2015 University of Memphis Tiger Blue Goes Green Student Research Competition
Member	Doctoral Dissertation Committee, Thomas Eugene Watts III, Ph.D. student, Department of Chemistry, "Method Development, Analysis, and Modeling of Drinking Water Contaminants and Disinfection By-Products". 2014-2016
Member	Doctoral Dissertation Committee, Meggan Larson, Ph.D. student, Department of Chemistry, "Disinfection By-Products Rapid Response Kit". 2010-2012
Chair	Master's Thesis Committee, Bhavin Chaubhan, MPH. "Mold in Residences and the Associated Respiratory Disease/Symptoms Among Occupants". 2015-2016
Member	Master's Thesis Committee, Daleniece Higgins, MPH. 2014-2016
Chair	Master's Project Committee, Marshall Varnum, MPH. "Monitoring Carcinogenic Air Toxics in Memphis: REACT Study". 2013-2015.
Chair	Master's Thesis Committee, Nikolas Carlson, MPH, "Examining the Role of In-home Environmental Exposure in High-Risk Childhood Asthma Severity". 2014-2015
Chair	Master's Project Committee, Katherine Miller, MPH, "Developing Emergency Response Plans and Emergency Kits for Homeless/Transient Populations". 2010-2011
Member	Master's Project Committee, Raquel Marion, MPH, "Risk Communication Action Plan for the Memphis and Shelby County Health Department Pollution Control Ambient Air Toxins Project". 2009-2010

### **13.3 Advising**

#### **MPH Students**

- (1) Jody Browder, 2018-2020
- (2) Cem Akkus, 2017-2019
- (3) Fariha Sultana, 2017-2019
- (4) Terri Ledsinger, 2017-2019
- (5) Darius E. James, 2016-2018
- (6) Bhavin Chauhan, 2015-2016
- (7) Cheyenne E Medlock, 2014-2016
- (8) Nicholas Carlson, 2014-2015
- (9) Marshall Varnum, 2013-2015
- (10) Deepthi Janga, 2013-2015
- (11) Jordan A Riddle, 2012-2014
- (12) Felecia Malone, 2012-2014
- (13) Christopher Williams, 2012-2014
- (14) Neha Singh, 2011-2013
- (15) Justin Hendrix, 2011-2013
- (16) Raelyn Pirtle, 2011-2012
- (17) Faydra Buford, 2010-2012
- (18) Agatha Asemota, 2009-2011
- (19) Patrick W. Denning, MPH, 2009-2011.

### 13.4 Advisees' honors

- (1) Fariha Sultana, MPH. Second place in the 30th Annual Graduate Student Research Forum at the University of Memphis, March 2018. Poster "Characterizing Polycyclic Aromatic Hydrocarbons (PAHs) in Ambient Air in the Memphis Tri-state Area".
- (2) Zhuqing Xue, Ph.D. First place in Tiger Blue Goes Green research competition event at University of Memphis, October 2014.
- (3) Zhuqing Xue, Ph.D. Second Place in Annual Interdisciplinary Case Competition, University of Memphis, September 2014.
- (4) Patrick W. Denning, MPH. Second place in the 22nd Annual Graduate Student Research Forum at the University of Memphis, April 2010. Poster "Ventilation Conditions in University Offices and Classrooms - A Pilot Study".

### Summer Interns

- (1) Javaris D. Rodgers, Grand Canyon University, Summer intern, 2017
- (2) Kanha Mishra, Memphis University School, Summer intern, 2016
- (3) Reeve Kedia, White Station High School, Summer intern, 2016
- (4) Aubrey Devine, Undergraduate student at Rhodes College, Summer intern, 2013
- (5) Summer Preg, Undergraduate student at Rhodes College, Summer intern, 2013

### 14. Services

2018-	Epidemiology PhD Admissions Committee (PhD), Division of EBE, School of Public Health
2016-	Epidemiology Curriculum Committee (PhD), Division of EBE, School of Public Health
2011-	MPH Curriculum Committee, School of Public Health
2014-2015	Search Committee - Environmental Health Faculty, School of Public Health Search Committee - Biostatistics Faculty, School of Public Health
2013-2014	Search Committee - Environmental Health Faculty, School of Public Health Search Committee - Biostatistics Faculty, School of Public Health
2011-2014	Committee on Faculty Affairs and Development (COFAD), School of Public Health
2011-2012	Search Committee - Director of Research, School of Public Health Search Committee - Environmental Health Faculty, School of Public Health
2010-2011	Environmental Studies Minor Committee, University of Memphis Search Committee - Environmental Health Faculty, School of Public Health
2009-2010	Search Committee - Epidemiology Faculty, School of Public Health MPH Program Admissions Committee, School of Public Health