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EDUCATION

Ph.D. in Environmental Engineering Sciences, University of Florida, 2009-2013

MBA, Master of Business Administration, University of Oklahoma, 2015-2019

M.S. in Environmental Management and Economics, Nankai University, 2006-2009

B.S. in Environmental Engineering, Nankai University, 2002-2006

PROFESSIONAL EXPERIENCES

Department of Environmental and Public Health Sciences, College of Medicine, University of Cincinnati

July 2024-present Graduate program director, Environmental and Industrial Hygiene, Occupational Safety and Ergonomics

Sep 2023-present Associate professor (tenured), Division of Environmental and Industrial Hygiene

Jan 2020-Aug 2023 Assistant professor (tenure track), Division of Environmental and Industrial Hygiene

Department of Occupational and Environmental Health, Hudson College of Public Health, University of Oklahoma Health Sciences Center

Aug 2013-Dec 2019 Assistant professor (tenure track)

Department of Environmental Engineering Sciences, University of Florida

Aug 2009-Aug 2013 Graduate research assistant

PROFESSIONAL CERTIFICATIONS

- Professional Engineer (PE, registered with Oklahoma Board, #28816, active)
- Certified Industrial Hygienist (CIH, #11484, active)
- Certified Safety Professional® (CSP, #34655, active)
- Certified Hazardous Materials Manager (CHMM, #30004, active)
- Certified in Public Health (CPH, #12066, expired)

Other Training

- UC-COM Faculty Mentor Academy (Cincinnati, OH, Mar 2026)
- ABET Program Evaluator Candidate Training (Baltimore, MD, Apr 2025)
- Foundations of Python, Data Manipulation, Data Visualization (Cincinnati, OH, Mar 2024)
- OUHSC Faculty Leadership Program (Oklahoma City, OK, 2016-2017, 128 hours program)
- OSCTR Translating Practice into Research (Oklahoma City, OK, 2016~2017 full-year program)
- Bayesian Statistics Methods Training (Oklahoma City, OK, May 2016)
- AIHA Leadership Workshop (Fall Church, VA, Jun 2016)
- Ethics for the EHS Professional (Webinar, Oct 2015)
- Introduction to Mammalian Cell Culture Techniques (Gainesville, FL, Jul 2011)

PROFESSIONAL MEMBERSHIPS

Current Membership

- American Association for Aerosol Research (AAAR, since 2010)
- American Industrial Hygiene Association (AIHA, since 2012)
- American Conference of Governmental Industrial Hygienists (ACGIH, since 2016)

Elapsed or Not Active

- Oklahoma Center for Respiratory & Infectious Diseases (OCRID, 2014-2019)
- Stephenson Cancer Center (SCC, 2014-2019)
 - Associate member of cancer health disparities research program (2014-2019)
- Air & Waste Management Association (AWMA, 2008-2014)
- University of Florida Student Section (2009-2013)
- Association of Environmental Engineering & Science Professors (AEESP, 2013-2017)
- American Public Health Association (APHA, 2015-2016)
- Chinese-American Professors in Environmental Engineering and Science (CAPEES, 2014-)
- International Society of Exposure Science (ISES, 2013-2016)
- National Environmental Health Association (NEHA, 2015-2019)

AWARDS & HONORS

Honors

Apr 2022	NIOSH Bullard-Sherwood Research to Practice (r2p) Award
Oct 2021	UC International Fellowship
Jan 2021	UC Research Launch Award
Apr 2020	CEG New Investigator Award
Jul 2018	OU Ben Barnett Memorial Fund

May 2018	AIHA Golden Seed Award
Apr 2018	COPHSA Faculty Teaching Award
Jul 2017	OUHSC Faculty Leadership Fellow
Jul 2016	OU Ben Barnett Memorial Fellowship
May 2012	FL-AWMA Scholarship
Mar 2012	The HDR Engineering, Inc Scholarship
Nov 2011	UF College of Engineering Outstanding Academic Achievement Award
Oct 2011	The Elmer L. Hann award from the Society of Naval Architects and Marine Engineers (SNAME)
Oct 2011	UFIC Outstanding International Student Award
Nov 2008	Young Voices Award on Better Air Quality (4 awardees worldwide)
Jun 2008	Nankai University Graduate Student Award 2 nd Place

Presentation Award

Oct 2012	31 st AAAR annual conference student poster competition winner
Aug 2012	2012 Southern California Chinese American Environmental Protection Association (SCCAEPA) student best research award 3 rd place
Sep 2011	2011 FL-AIHA fall conference 1 st place student poster award
Oct 2010	2010 FL-AWMA annual conference 1 st place student poster award

Travel Grants

Apr 2019	ASSP Terrance M. Hennessy professional education grant
Sep 2012	AAAR student travel grant
Sep 2012	2012 University of Florida Graduate Student Council travel fund
Sep 2019	2011 University of Florida Graduate Student Council travel fund
Jan 2011	National Science Foundation Civil, Mechanical and Manufacturing Innovation (NSF-CMMI) travel grant

GRANTS & PROJECTS

Ongoing Grants

- Michigan-Ohio Occupational Research Education (MOORE)
Agency: NIEHS | R25ES033042 | Total project cost: \$1,298,837 (per FY)
Role: Collaborator (8.3%) | PI: Batterman | Period: 9/1/2021-8/31/2026
- University of Cincinnati Education and Research Center (UC ERC)
Agency: CDC/NIOSH | #T42OH008432 | Total center cost: \$1,800,000 (per FY)
Role: IH Director and various other roles (22.8%) | PI: Davis | Period: 7/1/2021-6/30/2026
- Real-time monitoring of firefighter PPE's protection factor
Agency: U-M COHSE pilot project | #T42OH008455 | Total center cost: \$21,600
Role: mentor (10%) | PI: Niu/Yermakov | Period: 7/1/2025-6/30/2026

Completed Grants

- Novel Raman-based Near Real-time Monitoring of Occupational Exposure to Respirable Crystalline Silica
Agency: Ohio BWC | # 250185 | Total project cost: \$299,992
Role: Co-Principal investigator (15%) | PI: Morrow | Period: 7/1/2024-6/30/2025
- Direct-on-filter (DoF) Analysis of Airborne Nano- and Micro-Plastics in Occupational Environments
Agency: U-M COHSE pilot project | #T42OH008455 | Total project cost: \$21,600
Role: Mentor (10%) | PI: Morrow | Period: 7/1/2024-6/30/2025
- 3D Printing Custom Manikin Headforms for Improved Home Healthcare Worker Research
Agency: UC ERC PRP Project | #T42OH008432 | Total cost: \$8,000
Role: Co-Investigator | PI: Morrow | Period: 7/1/2024-6/30/2025
- Evaluation of the New Generation Respirator Protection Monitor (RePM) for Loose-Fitting Powered Air-Purifying Respirator (PAPR)
Agency: CDC/NIOSH | #75D30123P17111 | Total project cost: \$156,613
Role: Principal investigator (15%) | Period: 8/1/2023-8/30/2024
- Occupational Exposure and Interventions among Granite Countertop Fabrication Workers
Agency: U-M COHSE pilot project | #T42OH008455 | Total project cost: \$21,501
Role: Principal investigator | Period: 7/1/2023-6/30/2024
- Assessing the Impact of Respirator Design and Demographics on the Performance of N95 Respirators
Agency: UC ERC PRP Project | #T42OH008432 | Total cost: \$4,100
Role: Mentor | PI: Niu | Period: 7/1/2023-6/30/2024
- Enhance Performance and Applications of Exposure-Protection Integrated Communicator (EPIC)
Agency: Ohio BWC | #WISC24-230331-027 | Total project cost: \$1,474,198
Role: Principal investigator (40%) | Period: 7/1/2023-6/30/2024
- NIOSH Intergovernmental Personnel Act (IPA)
Agency: NIOSH | #22IPA2014120 | Total project cost: \$51,017
Role: Principal investigator (40%) | Period: 9/1/2022-8/31/2023
- Exposure-Protection Integrated Communicator (EPIC) to Improve and Promote PPE Usages in Ohio

Workplace

Agency: Ohio BWC | #WISC23-220513-001 | Total project cost: \$1,023,359

Role: Principal investigator (40%) | Period: 7/1/2022-6/30/2023

○ Center for Environmental Genetics

Agency: NIEHS | #P30ES006096 | Total center Cost: \$1,604,738

Role: ITS core | PI: Pinney | Period: 3/30/2022-4/1/2023

○ NIOSH COVID-related Intergovernmental Personnel Act (IPA)

Agency: NIOSH | #21IPA2014120 | Total project cost: \$27,856

Role: Principal investigator (20%) | Period: 9/1/2021-8/31/2022

○ Chemical and Toxicological Paradigm shift of Air Pollution in a Post Pandemic World

Agency: CEG Pilot Project | # P30ES006096 | Total project cost: \$20,000

Role: Principal investigator | Period: 7/1/2021-6/30/2022

○ Investigation of Occupationally-Related Stress of At-Risk Workers During COVID-19

Agency: UC ERC PRP Project | #T42OH008432 | Total project cost: \$7,550

Role: Mentor | PI: Gerding | Period: 7/1/2021-6/30/2022

○ Center for Environmental Genetics

Agency: NIEHS | #P30ES006096 | Total center cost: \$1,604,738 (per FY)

Role: New investigator (25%) | PI: Pinney | Period: 4/1/2020-3/30/2022

○ NIOSH COVID-related Intergovernmental Personnel Act (IPA)

Agency: NIOSH | # 20IPA2014120 | Total project cost: \$27,786

Role: Principal investigator (20%) | Period: 9/1/2020-8/31/2021

○ University of Cincinnati Education and Research Center (UC ERC)

Agency: CDC/NIOSH | #T42OH008432 | Total center cost: \$1,702,965 (per FY)

Role: EIH deputy director (6.5%) | PI: Reponen | Period: 7/1/2016-6/30/2021

○ Field-portable nano-sized aerosol sampler and analyzer for industrial hygiene research and education

Agency: PHF through OUHSC VPR | #C5112901 | Total direct cost: \$89,450

Role: Principal investigator (5%) | Period: 7/1/2018-6/30/2019

○ Development of a low-cost high-efficiency LEV retrofit kit for small business

Agency: Sooner Innovation Fund | Total direct cost: \$5,000

Role: Mentor | Period: 9/1/2018-11/30/2018

○ Ozone and vapor emission from a desktop stereolithography 3-D printer

Agency: NIGMS through OK-INBRE | #P20GM103447 | Total direct cost: \$2,200

Role: Summer mentor | Period: 5/1/2018-7/30/2018

○ Oxidative gases emission and particulates' oxidative potential from non-conventional welding

Agency: NIOSH through SWCOEH | #T42OH008421 | Total project cost: \$9,259

Role: Principal investigator/mentor (5%) | Period: 1/1/2018-6/30/2018

○ Fume emission and toxicity from 3-D fabrication

Agency: PHF through OUHSC-VPR | #C509311 | Total direct cost: \$49,996

Role: Principal investigator (15%) | Period: 7/1/2016-12/31/2017

○ Balancing sustainability, clean air, healthy learning interiors, and structural safety when designing and

building schools

Agency: USEPA | #83563401-0 | Total direct cost: \$646,633

Role: Investigator (6%) | PI: Lisa Holliday | 1/1/2015-12/31/2017

- Ultrafine particle emission from multi-nozzle 3-D printer

Agency: NIGMS through OK-INBRE | #P20GM103447 | Total direct cost: \$2,200

Role: Summer mentor | Period: 5/1/2016-7/30/2016

- Representativeness of chamber sampling in occupational metal fume exposure assessment

Agency: NIOSH through SWCOEH | #T42OH008421 | Total project cost: \$9,180

Role: Principal investigator (10%) | Period: 7/1/2015-6/30/2016

- Characterization of e-cigarette emissions from current generation modifiable systems

Agency: OTRC | #C1082808 | Total direct cost: \$49,544

Role: Co-investigator (6%) | PI: Evan Floyd | Period: 7/1/2014-6/30/2015

PUBLICATIONS & PRESENTATIONS

Peer-reviewed Journal Articles

[Link to Google Scholar](#) | [Link to PubMed](#) * corresponding author

1. Gerding, T., Howe, S., Slater P., VanLandeghem, B., **Wang, J.*** Evaluation of exposure and impacts of airborne contaminants from fire department live burn training, submitted to *International Journal of Hygiene and Environmental Health*, under review
2. Niu, X., Yermakov, M., Horvatin, M., Zhuang, Z., Yang, W., Grinshpun, S., **Wang, J.*** Real-time evaluation of workplace protection factors from powered air-purifying respirators, *Journal of Occupational and Environmental Hygiene*, under review
3. Bellacov, R., Gerding, T., Fang, R., Wang, J., Hsu, W-W. Mapping hazardous air pollutant levels in fire stations using consumer-grade air quality monitors, submitted to *Journal of Occupational and Environmental Hygiene*, under review
4. Niu, X., Yermakov, M., Grinshpun, S., **Wang, J.*** Fit testing of N95 respirators: a pilot study on respirator design and demographic factors, *Journal of Occupational and Environmental Hygiene*, accepted, in press
5. Niu, X., Yermakov, M., Choudhary, C., Li, T., Grinshpun, S., **Wang, J.*** Evaluating desiccant efficiency and particle loss in aerosol sampling tubings for humidity control, Submitted to *Journal of The International Society for Respiratory Protection*, under review
6. Bellacov, R., Davis, K., **Wang, J.**, Kotowski, S. (2025). Breathing patterns during job-related tasks for home healthcare workers influencing aerosol exposure, *Home Health Care Management & Practice*, in press, doi: 10.1177/108482232513524
7. **Wang, J.***, Singletary J., Reponen T., Grinshpun, S., Yermakov, M., Bunte, J. (2025). Aerosol emission, transmission, and mitigation from performing singing and wind instruments, *Journal of Occupational and Environmental Hygiene*, 22(9):733-742
8. Niu, X., Hall, P., **Wang, J.***, Lange, S. (2024). Airborne hexavalent chromium and particulate matter emissions during the laser cutting of leathers, *ACS Chemical Health & Safety*, 31 (4), 306-312
9. O'Neill, K., Niu, X., **Wang, J.***, Fang, R. (2024). Respirable particles and gas contaminants emissions from a desktop laser cutter and engraver, *Aerosol and Air Quality Research*, 24 (8): 240032
10. Gerding, T., **Wang, J.***, Newman, N. (2023). Examining work stress and air pollutants exposure of home healthcare workers, *Atmosphere*, 14 (9): 1393
11. Fang, R., Mohammed, A., Yadav, J., **Wang, J.*** (2023). Cytotoxicity and characterization of ultrafine particles from desktop three-dimensional printers with multiple filaments, *Toxics*, (9): 720
12. Gerding, T., Davis, K., **Wang, J.*** (2023). An investigation into occupational related stress of at-risk workers during COVID-19, *Annals of Work and Exposure Health*, 67(1): 118-128
13. Gerding, T., **Wang, J.*** (2022) Stressed at work: investigating the relationship between occupational stress and salivary cortisol fluctuations, *International Journal of Environmental Research and Public Health*, 19(19): 12311
14. McCann A., Singerman, K., Coxe J., Singletary, J., **Wang, J.**, Collar, R., Hsieh T-Y. (2022). Quantifying aerosol generation in maxillofacial trauma repair techniques, *Craniomaxillofacial Trauma & Reconstruction*, 15(4): 362-368

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15. Ward, R., Tilly, T., Mazhar, S., Robinson, S., Eiguren-Fernandez, A., **Wang, J.**, Sabo-Attwood, T., Wu, C. (2020). Mimicking the human respiratory system: online in vitro cell exposure for toxicity assessment of welding fume aerosol. *Journal of Hazardous Materials*, 395: 122687
 16. Fang, L., Qiu, F., Li, Y., Wang, S., DeGuzman, J., **Wang, J.**, She, J. (2019). Determination of carbazole and halogenated carbazoles in human serum samples using GC-MS/MS. *Ecotoxicology and Environmental Safety*, 184: 109609
 17. Su, W., Chen, Y., Bezerra, M., **Wang, J.** (2019). Respiratory deposition of ultrafine welding fume particles. *Journal of Occupational and Environmental Hygiene*, 16(10):694-706
 18. Zhao, J., Feng, Y., Bezerra, M., **Wang J.**, Sperry, T. (2019). Numerical simulation of welding fume lung dosimetry. *Journal of Aerosol Sciences*, 135: 113-129
 19. Li, H., Zhao, J., Zhang, W., Yang, J., **Wang, J.**, Zhang M., Yang Z., Li L., Shih K. (2018). NH₃ inhibits mercury oxidation over low-temperature MnOx/TiO₂ SCR catalyst. *Fuel Processing Technology*, 176: 124-130
 20. Floyd, E., Queimado, L., **Wang, J.**, Regens, J., Johnson, D. (2018). Electronic cigarette power affects count concentration and particle size distribution of vaping aerosol. *PLOS One*, 13(12): e0210147
 21. Feng, Y., Zhao, J., Kleinstreuer, C., Wang, Q., **Wang, J.**, Wu, D., Lin, J. (2018). An in silico inter-subject variability study of extra-thoracic morphology effects on inhaled particle transport and deposition. *Journal of Aerosol Sciences*, 123: 185-207
 22. Johnson, D., Lynch, R., Floyd, E., **Wang, J.**, Bartels, J. (2018). Indoor air quality in classrooms: environmental measures and effective ventilation rate modeling in urban elementary schools. *Building and Environment*, 136: 185-197
 23. Li, H., Zhang, W., **Wang, J.**, Yang, Z., Li, L., Shih, K. (2018). Copper slag as a catalyst for mercury oxidation in coal combustion flue gas. *Waste Management*, 4: 253-259
 24. Jiang, S., Liu, X., Li, H., **Wang, J.**, Yang, Z., Peng, H., Shih, K. (2018). Synergistic effect of HCl and NO in elemental mercury catalytic oxidation over La₂O₃-TiO₂ catalyst. *Fuel*, 215(1):232-238
 25. Floyd, E., **Wang, J.***, Regens, J. (2017). Fume emissions from a low-cost 3-D printer with various filaments. *Journal of Occupational and Environmental Hygiene*, 14 (7): 523-533
 26. Li, H., Zhang, W., **Wang, J.**, Yang, Z., Li, L., Shih, K. (2017). Coexistence of enhanced Hg⁰ oxidation and induced Hg²⁺ reduction on CuO/TiO₂ catalyst in the presence of NO and NH₃. *Chemical Engineering Journal*, 330: 1248-1254
 27. **Wang, J.***, Li, H., Bezerra, M. (2017). Assessment of shooter's task-based exposure to airborne lead and acidic gas at indoor and outdoor ranges. *Journal of Chemical Health and Safety*, 24 (4): 14-21
 28. Li, H., Zhu, L., **Wang, J.**, Li, L., Lee, P. H., Feng, Y., Shih, K. (2017). Effect of nitrogen oxides on elemental mercury removal by nanosized mineral sulfide. *Environmental Science & Technology*, 51(15): 8530-8536
 29. **Wang, J.***, Hoang, T., Floyd E., Regens, J. (2017). Characterization of particulate fume and oxides emission from stainless steel plasma cutting. *Annals of Work Exposures and Health (formerly known as Annals of Occupational Hygiene)*, 61 (3): 311-320
 30. Fang, H., **Wang, J.***, Lynch, R. (2017). Migration of di(2-ethylhexyl)phthalate (DEHP) and di-n-butylphthalate (DBP) from polypropylene food containers. *Food Control*, 73 Part B: 1298-1302
 31. Li, H., Zhu, L., **Wang, J.**, Li, L., Shih, K. (2016). Development of nano-sulfide sorbent for efficient removal of elemental mercury from coal combustion fuel gas. *Environmental Science & Technology*, 50 (17): 9551-9557

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32. Li, H., Wu, S., Li, L., **Wang, J.**, Ma, W., Shih, K. (2015). CuO-CeO₂/TiO₂ catalyst for simultaneous NO reduction and Hg⁰ oxidation at low temperatures. *Catalysis Science & Technology*, 5: 5129-5138
 33. Li, H., Wu, S., Wu, C.-Y., **Wang, J.**, Li, L., Shih, K. (2015). SCR atmosphere induced reduction of oxidized mercury over CuO/CeO₂-TiO₂ catalyst. *Environmental Science & Technology*, 49 (12): 7373-7379
 34. Hayes, J., **Wang, J.**, Roessler J., Ferraro C., Wu, C.-Y., Deford D., Townsend T. (2015). Evaluation of leaching of trace metals from concrete amended with cement kiln baghouse filter dust. *Resources, Conservation and Recycling*, 94: 92-98
 35. Li, H., Wu, X., Wang, M., **Wang, J.**, Wu, S., Yao, X., Li, L. (2014). Separation of elemental sulfur from zinc concentrate direct leaching residue by vacuum distillation. *Separation and Purification Technology*, 138: 41-46
 36. **Wang, J.**, Hayes, J., Wu, C.-Y., Townsend, T., Schert J., Vinson T., Deliz K., Bonzongo J.-C. (2014). Characterization of vapor phase mercury released from concrete processing with baghouse filter dust added cement. *Environmental Science & Technology*, 48 (4): 2481-2487
 37. Jin, T., Qu, L., Liu, S., Gao, J., **Wang, J.**, Wang, F., Zhang P., Bai, Z., Xu, X. (2014). Chemical characteristics of particulate matter emitted from a heavy duty diesel engine and correlation among inorganic and PAH components. *Fuel*, 116: 655-661
 38. **Wang, J.**, Wu, C.-Y., Franke, G. (2014). Effectiveness of amorphous silica encapsulation technology on welding fume particles and its impact on mechanical properties of welds. *Materials & Design*. 54: 79-86
 39. **Wang, J.**, Jin, L., Gao, J., Shi, J., Zhao, Y., Liu, S., Jin, T., Bai, Z., Wu, C.-Y. (2013). Investigation of speciated VOC in gasoline vehicular exhaust under ECE and EUDC test cycles. *Science of the Total Environment*, 445-446: 110-116
 40. **Wang, J.**, Kalivoda, M., Guan J., Theodore, A., Sharby, J., Wu, C.-Y., Paulson, K., Es-Said, O. (2012). Double shroud delivery of silica precursor for reducing hexavalent chromium in welding fume. *Journal of Occupational and Environmental Hygiene*, 9 (12): 733-742
 41. Zhao, C., Liu, L., Zhang, Q., **Wang, J.**, Li, Y. (2012). Photocatalytic conversion of CO₂ and H₂O to fuels by nanostructured Ce-TiO₂/SBA-15 composites. *Catalysis Science & Technology*, 2: 2558-2568
 42. Hall, D., Wu, C.-Y., Hsu, Y.-M., Stormer, J., Engling, G., Capeto, K., **Wang, J.**, Brown S., Li, H.-W., Yu, K.-M. (2012). PAHs, carbonyls, VOCs and PM_{2.5} emission factors for pre-harvest burning of Florida sugarcane. *Atmospheric Environment*, 55: 164-172
 43. Topham, N., **Wang, J.**, Kalivoda, M., Huang, J., Yu, K.-M., Hsu, Y.-M., Wu, C.-Y., Oh, S., Cho, K., Paulson, K. (2012). Control of Cr⁶⁺ emissions from gas metal arc welding using a silica precursor as a shielding gas additive. *Annals of Occupational Hygiene*, 56 (2): 242-252
 44. **Wang, J.**, Topham, N., Wu, C.-Y. (2011). Determination of silica coating efficiency on metal particles using multiple digestion methods. *Talanta*, 85 (5): 2655-2661
 45. Paulson, K., **Wang, J.**, Topham, N., Wu, C.-Y., Alexandrov, B., Lippold, J., Es-Said, O. (2011). Alternatives for joining stainless steel to reduce Cr(VI) emissions and occupational exposures. *Journal of Ship Production & Design*, 27 (2): 91-97
 46. Li, W., Peng, Y., Shi, J., Qiu, W., **Wang, J.**, Bai, Z. (2011). Particulate polycyclic aromatic hydrocarbons in the urban Northeast Region of China: Profiles, distributions and sources. *Atmospheric Environment*, 45 (40): 7664-7671

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47. Yu, K.-M., Topham, N., **Wang, J.**, Kalivoda, M., Tseng, Y., Wu, C.-Y., Lee, W.-J., Cho, K. (2011). Decreasing biotoxicity of fume particles produced in welding process. *Journal of Hazardous Materials*, 185 (2-3): 1587-1591

Books & Chapters

1. Zhipeng Bai, **Jun Wang**, and Yan You, Environmental Risk Assessment. Higher Education Press, Beijing, China, Dec 2008, ISBN 978-7-04-025339-9.
2. Zhipeng Bai and **Jun Wang**, Environmental Management. China Chemical Industry Press Ltd., Beijing, China, Sep 2007, ISBN 978-7-122-00893-0.

Conference Presentations

* platform presentation | # poster presentation | ~ short course/PDC | \$ award winner

^ presented on behalf of the first author | % presented by my students or associates on behalf of me

12th International Aerosol Conference (IAC) 2026, Xi'an, Shaanxi, China, Aug 2026

1. Characterizing aerosol emissions from musical activities: insights from singing and wind instrument performance %

OH2026 The Workplace Health Protection Conference, Glasgow, UK, Jun 2026

2. Real-time detection of respirator protection factor: challenges and improvements *
3. Direct-on-filter Raman analysis of aerosols in manufacturing environment *

American Industrial Hygienist Association (AIHA) Connect 2026, New Orleans, Jun 2026

4. Accelerating silica quantification using Raman spectroscopy, part of PDC 702: 2026 Respirable crystalline silica and other minerals and metals symposium ~%
5. D2: PEAK part 2: occupational exposure to particulate matter and chemicals *
6. I2: PEAK part 4: an overview of Raman spectroscopy analysis of aerosols *%

35th Annual Sustainability, Environmental, Health & Safety Symposium, Sharonville, OH, Mar 2026

7. O: HAP Hazard Ahead - Emerging Methods for Safer Air ~

American Association for Aerosol Research (AAAR) 43rd Annual Conference, Buffalo, NY, Oct 2025

8. Advancing respiratory protection and exposure assessment through applied aerosol science #%

The 11th International Symposium on Modern Principles of Air Monitoring and Biomonitoring, Loen, Norway,

Jun 2025

9. SC-9: Sampling, analysis and monitoring emerging air pollutants in workplace ~

American Industrial Hygienist Association (AIHA) Connect 2025, Kansas City, MO, May 2025

10. E3 Particle exposure assessment knowledge (PEAK) part 1: respirable crystalline silica *
11. F3 Particle exposure assessment knowledge (PEAK) part 2: ultrafine particles *
12. G3 Particle exposure assessment knowledge (PEAK) part 3: bioaerosols *
13. C3 Challenges and solutions to current 3D printing emission test standards *

Asian Aerosol Conference 2024, Kuching, Malaysia, Nov 2024

14. Aerosol emissions from desktop laser cutting and engraving of various common materials, abstract #118 *
15. Monitoring of protection factor for aerosols filtering respirators using optical particle sensors, abstract

#119 *

16. Airborne plastic emission dynamics during high speed FDM 3D printing, abstract #120 *

17. Evaluation of indoor air quality during carpet cleaning activities, abstract #187 ^

European Aerosol Conference 2024, Tampere, Finland, Aug 2024

18. Optical-based measurement of workplace protection factor for aerosols filtering respirators, abstract #1033 *

19. Characterization of aerosol emission from ultra high speed 3-D printing, abstract #888 #

20. Aerosol emissions from desktop laser cutting and engraving of various common materials, abstract #857 #

American Industrial Hygienist Association (AIHA) Connect 2024, Columbus, OH, May 2024

21. PDC 305 Direct reading instruments for students and young Professionals ~

22. D9 Real-time measurement of workplace protection factor *

23. Emissions from desktop laser cutting and engraving of various common materials %

Ohio Safety Congress & Expo (OSC) 2024, Columbus, OH, Mar 2024

24. Exposure-protection integrated communicator (EPIC) *

25. Enhance performance and applications of exposure-protection integrated communicator (EPIC) #

Aerosol Day 2024, Cincinnati, OH, Mar 2024

26. Characterization of aerosol emission from ultra-high speed 3D printing %

27. Aerosol emissions from desktop laser cutting and engraving of various common materials %

Ohio Safety Congress & Expo (OSC) 2023, Columbus, OH, Mar 2023

28. Exposure-protection integrated communicator (EPIC) to improve and promote PPE usages in Ohio workplace #

32nd Annual Sustainability & EHS Symposium, Sharonville, OH, Mar 2023

29. K: Best practice in occupational exposure protection *

American Industrial Hygienist Conference & Expo (AIHce) 2022, Nashville, TN, May 2022

30. An investigation into occupational related stress of at-risk workers during COVID-19 %

31. Cytotoxicity and characterization of ultrafine particles from desktop three-dimensional printers with multiple filaments %

American Association for Aerosol Research (AAAR) 38th Annual Conference, virtual, Oct 2020

32. Aerosol generation and transmission from performing singing and wind instruments, No. 6.ID.3 *

American Industrial Hygienist Conference & Expo (AIHce) 2019, Minneapolis, Mn, May 2019

33. H6 Novel experimental approaches to study emission and exposure of welding fume *

34. M13 University of Oklahoma Health Sciences Center OEH student presentations %

10th International Aerosol Conference (IAC), St. Louis, MO, Sep 2018

35. Emission and oxidative potential of particulates from alternating current tungsten inert gas welding on aluminum, No. 9.WA.7 *

36. Link the oxidation level between gaseous and particulates compounds: a study on nitrogen-enriched stainless steel welding and cutting, No. 10.WA.7 #

NIOSH ERC PPRTS Symposium, the University of Texas School of Public Health, Houston, TX, Jun 2018

37. Oxidative gases emission and particulates' oxidative potential from non-conventional welding %

American Industrial Hygienist Conference & Expo (AIHce) 2018, Philadelphia, PA, May 2018

- 38. K1 Sampling, measurement and numerical simulation of respiratory deposition of metal fume particles *
- 39. A4 Frontier research on welding fume emission and engineering control *
- 40. I13 Low-cost 3-D printing and fabrication: not low in fume emission *
- 41. Emission of oxidative gases and ultrafine particles from nitrogen-enriched welding, No. 862 %

American Association for Aerosol Research (AAAR) 36th Annual Conference, Raleigh, NC, Oct 2017

- 42. Aerosol and gaseous pollutants emission from a desktop laser cutter and engraver, No. 2.AE.12 #
- 43. High oxidative potential of metal oxides in welding and plasma cutting fume, No. 8.OP.14 #

American Industrial Hygienist Conference & Expo (AIHce) 2017, Seattle, WA, Jun 2017

- 44. Respirable and ultrafine aerosol emissions from a desktop laser cutter and engraver, No. 927 #%

American Association for Aerosol Research (AAAR) 35th Annual Conference, Portland, OR, Oct 2016

- 45. Tutorial: control of indoor aerosol exposure ~
- 46. Particulate hexavalent chromium, aerosol size distribution, and respiratory deposition of pulsed metal inert gas welding fume, No. 11.CM.4 *
- 47. Aerosol emission from low-cost metal and thermoplastic 3-D fabrication, No. 8.AE.4 #
- 48. A comparison of respirable welding fume aerosol exposure reduction by low-cost and commercial local exhaust ventilations, No. 11.CM.3 *

American Industrial Hygienist Conference & Expo (AIHce) 2016, Baltimore, MD, May 2016

- 49. Effects of pulse parameters on welding fume aerosol size distribution and respiratory deposition, No. PO-120-08 *
- 50. Aerosol and volatile organic compounds emissions from a low-cost 3-D printer, No. PO-120-02 *

American Association for Aerosol Research (AAAR) 34th Annual Conference, Minneapolis, MN, Oct 2010

- 51. Effects of pulse parameters on welding fume aerosol size distribution and respiratory deposition. No. 8.AE.10 #%
- 52. Volatile organic compounds and aerosol emissions from a low-cost desktop 3-D printer. No. 2.IA.5 #

American Industrial Hygienist Conference & Expo (AIHce) 2015, Salt Lake City, UT, Jun 2015

- 53. Characterization of metal fume emitted from stainless steel plasma cutting. No. SR-120-06 *

Oklahoma Center for Respiratory & Infectious Diseases (OCRID) 2nd Annual Research Retreat, Stillwater, OK, Apr 2015

- 54. A preliminary study on respiratory exhaled aerosol diagnosis of pulmonary diseases. No. 119 #

American Association for Aerosol Research (AAAR) 33rd Annual Conference, Orlando, FL, Oct 2014

- 55. Characterization of aerosols generated from stainless steel plasma cutting. No. 2.AE.1 #

American Industrial Hygienist Conference & Expo (AIHce) 2014, San Antonio, TX, Jun 2014

- 56. Assessment of lead particle and acidic gas exposure during gun firing. No. SR-124-04 *
- 57. Characterization of mercury in baghouse filter dust (BFD) and the release of vapor phase mercury from concrete processing, No. SR-125-03 *
- 58. A novel amorphous silica encapsulation technology for reducing the toxicity of welding fume particles, No. SR-402-04 #

American Association for Aerosol Research (AAAR) 32nd Annual Conference, Portland, OR, Oct 2013

- 59. Assessment of lead particle and acidic gas exposure during gun firing. No. 8AE.8 #

106th Air & Waste Management Association (AWMA) Conference and Expo, Chicago, IL, Jun 2013

60. Characterization of Hg speciation and release from cement kiln baghouse dust, (No. 12761) *%

American Association for Aerosol Research (AAAR) 31st Annual Conference, Minneapolis, MN, Oct 2012

61. Amorphous silica encapsulation on welding fume particles. AAAR 31st Annual Conference, Minneapolis, MN, 2012.10. (No. 8NM.8) # \$

American Industrial Hygienist Conference & Expo (AIHce) 2012, Indianapolis, IN, Jun 2015

62. Development of silica precursor technology on reducing welding fume toxicity. No. SR-129-7 *

63. Development of a novel porous membrane denuder. No. SR-128-3 * ^

105th Air & Waste Management Association (AWMA) Conference and Expo, San Antonio, TX, Jun 2012

64. Development of silica precursor Technology on reducing welding fume toxicity, No. 41 # %

American Association for Aerosol Research (AAAR) 30th Annual Conference, Orlando, FL, Oct 2011

65. Decreasing Cr⁶⁺ in stainless steel welding fume using silica precursor as reducer, No. 10D.2 *

66. Determination of silica coating efficiency on metal particles using multiple digestion methods. AAAR 30th Annual Conference, No. 8A.4 *

Florida Section of American Industrial Hygienist Association (FL-AIHA) Fall Conference, St. Augustine, FL, Sep 2011

67. Reducing Cr⁶⁺ exposure in welding process using silica precursor technology, # \$

American Association for Aerosol Research (AAAR) 29th Annual Conference, Portland, OR, Oct 2010

68. Application of silica precursor to reduce toxic metal emissions from stainless steel welding process, No. 3D.6 *

69. Study of air toxics released from the pre-harvest burning of sugarcane, No. 2C.11 # ^

2010 Florida Section of Air & Waste Management Association Annual Conference, Crystal River, FL, Oct 2010

70. Application of silica precursor to reduce toxic metal emissions from welding process # \$

103rd Air & Waste Management Association (AWMA) Conference and Expo, Calgary, Alberta, Canada, Jun 2010

71. Application of silica precursor to reduce toxic metal emissions from gas metal arc welding process. * %

Air & Waste Management Association (AWMA) International Specialty Conference, Xi'an, China, May 2010

72. Application of silica precursor to reduce toxic metal emissions from gas metal arc welding process, pp. 419 *

73. Study of air toxics released from the pre-harvest burning of sugarcane, pp. 346 * ^

Air & Waste Management Association (AWMA) Air Quality Measurement Symposium, Chapel Hill, NC, Nov 2008

74. Continuous on-board vehicle emission measurement system. *

101st Air & Waste Management Association (AWMA) Conference and Expo, Portland, OR, Jun 2008

75. Particulate matters component profile of exhaust emission from heavy-duty diesel vehicle at Tianjin, China *

Invited Talks

* graduate/research seminar talk | # keynote/plenary speech at conference/symposium

1. Enhancing workplace exposure assessment and control with artificial intelligence, The 11th International Symposium on Modern Principles of Air Monitoring and Biomonitoring, Loen, Norway, Jun 2025 #

-
2. Leveraging artificial intelligence (AI) to enhance occupational hygiene: from machine learning to generative AI, OHAO 2025 Spring Symposium, virtual, Mar 2025 #
 3. Artificial intelligence to enhance occupational exposure assessment and control, Berkeley COEH IH Webinar, virtual, Sep 2024 *
 4. AI applications in industrial hygiene, Midwest Regional ERC Symposium, Chicago, IL, Apr 2024 #
 5. Chemical and toxicological paradigm shift of air pollution in a post pandemic world, CEG Symposium, Cincinnati, OH, Nov 2023 *
 6. Applications of low-cost real-time direct-reading aerosol sensors in environment studies, DCEE Graduate Seminar, Cincinnati, OH, Feb 2023 *
 7. Air and waste research and education at UC, All-Ohio A&WMA Meeting, Hamilton, OH, Oct 2022 #
 8. COVID-19 pandemic and its impact on vulnerable population and work-related stress, DEPHS Graduate Seminar, Cincinnati, OH, Apr 2022 *
 9. Airborne transmission risks and mitigations in potential aerosol generation scenario, NIOSH COVID IPA Science Summit, virtual, Aug 2021 #
 10. Education certification and industrial standards in US industrial hygiene, 1st Occupational Hygiene Engineering Conference, China University of Labor Relations, Beijing, China, Dec 2020 #
 11. Music performance and COVID-19, DEPHS Graduate Seminar, Cincinnati, OH, Nov 2020 *
 12. Characterization of aerosols from musical performance and risk mitigation related to COVID-19 pandemic, University of Cincinnati ERC Webinar, Cincinnati, OH, July 2020 *
 13. Arrival of Additive Manufacturing: what we learned from an industrial hygiene perspective? West Virginia University, Morgantown, WV, Nov 2019 *
 14. Welding and 3-D printing: clash of conventional and futuristic fabrication processes from an industrial hygiene perspective, University of Cincinnati, Cincinnati OH, July 2019 *
 15. Welding and 3-D printing: clash of conventional and futuristic fabrication processes from an industrial hygiene perspective, University of Washington, Seattle, WA, May 2019 *
 16. A historical review of industrial hygiene in the US, to Challenges of education, training, and research after the Chinese government restructure, Zhoushan Municipal CDC, Zhoushan City, China, May 2018. #
 17. Emerging issues related to aerosols around globe workplace: where do they come from and how do we control them? 1st International Occupational Health Forum, Beijing, China, Aug 2017 #
 18. Challenges and opportunities: industrial hygiene practices, research, and education in US and China, COPHSA Meeting, Oklahoma City, OK, Oct 2016 *
 19. Aerosols in the workplace: research conducted by industrial hygienists, Oklahoma Christian University, Edmond, OK, Oct 2016 *
 20. Education, practice, and research framework of industrial hygiene: a comparison between US and China, Chongqing Safety Engineering Institute, Chongqing, China, Sep 2016 *
 21. Emerging exposure and risks from low-cost metal and thermoplastic 3-D printers, 2nd China-US Occupational Health Symposium, Guangzhou, Guangdong, China, Jul 2016 #
 22. Representativeness of chamber sampling in occupational metal fume exposure assessment. NIOSH ERC PPRTS Symposium, the University of Texas School of Public Health, Houston, TX. Jun 2016 *
 23. Fume characteristics and controls from innovative welding technology and other metal fabrication

processes. Central South University, School of Energy Science and Engineering, Changsha, Hunan, China, Jul 2015 *

24. Risk assessment lesson learned from BP Deepwater Horizon oil spill. International Symposium on Marine and Aquatic Food Safety Risk Assessment, Qingdao, Shandong, China, Jul 2015 #
25. Aerosol lung deposition model and its applications in occupational and environmental health, Chinese Research Academy of Environmental Sciences, Beijing, China, Jul 2015 *
26. Characterization of emerging occupational aerosol exposure & development of next generation engineering controls. University of Arizona, Tucson, AZ, Aug 2014 *
27. Conversion from science to policy in Asian Cities. Better Air Quality 2008, Bangkok, Thailand, Nov 2008 #

Media Appearance

1. AIHA Healthier Workplaces Show, Episode 52: "Are 3D printing emission tests adequate", Nov 2024
2. Interviewed by WCPO and Fox 19, "Styrene leakage from railcar in Whitewater Township", Oct 2023
3. Interviewed by WKEF, "Environmental concerns after lithium-ion battery burns", Nov 2023
4. Interviewed by Local 12/WKRC, "Study shows workplace stress increased during the pandemic, still affects us", Nov 2022
5. Interviewed by WVXU/NPR, "2 UC projects win 1M each from the Bureau of Workers' Comp", Sep 2022
6. Interviewed by Cincinnati Enquirer/USA Today, "Coronavirus in Ohio: UC study examines effects of singers, band instruments" Aug 2020
7. Interviewed by COPH Magazine, "Averting assaults on health by air", Sep 2018
8. Interviewed by AIHA Synergist, "Pole to pole Series: China", Oct 2016

TEACHING & OUTREACH

Department of Environmental and Public Health Sciences, College of Medicine,

Primary instructor

- 2022-present **EIH 7043** Aerosol Properties and Measurement
* Offer in Spring every year, 2 credits. Previously named "Physical and Biological Aspects of Aerosol"
- 2021-present **EIH/PH 8034** Hazardous Materials Management
* Offer in Fall every year, 2 credits.
- 2020-present **EIH/PH 7007** Principles of Occupational Exposure Assessment
* Offer in Fall every year, 2 credits.
- 2023-2024 **EIH 7042** Practice in Occupational Exposure Assessment II
* Offer in Spring every year, 2 credits.
- 2022-2024 **EIH 7041** Practice in Occupational Exposure Assessment I
* Offer in Fall every year, 2 credits.
- 2022-2024 **EIH 8035** Ventilation for Safety and Health
* Offer in Spring every year, 1 credit.

Department of Occupational and Environmental Health, College of Public Health, University of Oklahoma Health Sciences Center

- 2016-2019 **OEH 6683** Applied Modeling Technology in Occupational and Environmental Health Research
* Offer in Fall biannually, in-class, 3 credit hours
* New course developed for doctoral students and inaugural offering in Sep 2016
- 2014-2019 **OEH 5553** Occupational & Environmental Toxicology
* Offer in Spring every year, hybrid format (75%/25%), 3 credit hours.
* Course changed from 100% in-class to 75%/25% hybrid format in Jan 2018.
* Course number changed from OEH 6553 to OEH 5553 in Jan 2018.
- 2014-2019 **OEH 5743** Industrial Hygiene & Environmental Measurements
* Co-lectured the course in May 2014, guest lectured "Transport and fate of air pollutants" annually.
- 2014-2018 **OEH 5752** Occupational Hazards Control
* Offer in Spring every year, in-class, 2 credit hours.
* Course number will change from OEH 6752 to OEH 5752 in Jan 2018.
* Course reassigned to another faculty to reduce teaching load starting Jan 2019.
- 2014-2018 **OEH 5013** Environmental Health (online)
* Developed as an online core course and started offering in Fall since 2014.
* Course reassigned to another faculty to reduce teaching load starting Sep 2018.

Continuing Education and Outreach Efforts

1. Expert panelist, International Section of the ISSA on Prevention of Occupational Risks in Health Services, Munich, Germany, Oct 2025
2. Conference organizer: Nanotechnology Research Center Summit, Cincinnati, OH, Oct 2024
3. Conference organizer: Aerosol Day, Cincinnati, OH, Mar 2024
4. Workshop: best practices in occupational exposure protection, 32nd Annual Sustainability & EHS Symposium, Cincinnati, OH, Mar 2023
5. Conference organizer: 2019 American Industrial Hygiene Association Oklahoma Section (OK-AIHA) Annual Conference, Oklahoma City, OK, Oct 2019
6. Continue education course: concepts of modern occupational health: industrial hygiene and safety, Dongfeng Honda Automobile, Wuhan, China, Nov 2018

MENTORING

Research Associates & Visiting Scholars

Environmental and Industrial Hygiene, University of Cincinnati

- Xinyi Niu, PhD, postdoc fellow, University of Cincinnati, 2025-present
- Xiangjing Gao, PhD, visiting scholar, Zhejiang Provincial Center for Disease Control and Prevention, 2024-2025
- Justin Murrow, PhD, research scientist, University of Cincinnati, 2023-present
- Michael Yermakov, MD, senior research associate, University of Cincinnati, 2022-present

Occupational and Environmental Health, University of Oklahoma Health Sciences Center

- Yuchao Wang, visiting scholar, Zhoushan Municipal Center for Disease Control and Prevention, 2019
- Yan Chen, visiting scholar, Zhoushan Municipal Center for Disease Control and Prevention, 2019
- Shuzhuan Li, visiting scholar, Beijing Institute of Technology, 2018
- Zhichao Fang, visiting scholar, Zhoushan Municipal Center for Disease Control and Prevention, 2017
- Li Fang, visiting scholar, Zhoushan Municipal Center for Disease Control and Prevention, 2016-2017
- Heng Wang, visiting scholar, Institute of Urban Environment, Chinese Academy of Sciences, 2015-2016
- Haiqin Fang, postdoctoral researcher, China National Center for Food Safety Risk Assessment, 2014-2015

Graduate Students

Environmental and Industrial Hygiene, University of Cincinnati

Advised as committee chair (by expected graduation date)

- Ben Goulart, Ph.D. student, expect graduate in 2028
- Chien-Yu Hsu, Ph.D. student, expect graduate in 2028
- Slater Payne, Ph.D. student, expect graduate in 2028
- Joseph Nyakundi, Ph.D. candidate, expect graduate in 2027
- Shawn Howe, M.S. student, expect graduate in 2026
- John Singletary, Ph.D. candidate, on medical leave of absence
- Xinyi Niu, Ph.D., graduated in 2024
Dissertation short title: "Real-time monitoring of workplace protection factors and respirator design"
- Kunj Patel, MPH student (capstone), graduated in 2024
- Christina Kander, Ph.D., graduated in 2023
Dissertation short title: "PPE and fireground vapor and particulate protection factors"
- Thomas Gerding, Ph.D., graduated in 2023
Dissertation short title: "Stress at work: fluctuation of cortisol levels"
- Jacob Brock, M.S., course completed
Thesis short title: "Particles during stainless steel welding and cutting"
- Runcheng Fang, M.S., graduated in 2022
Thesis short title: "Cytotoxicity of 3-D printing fume"

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- Jory Gould, M.S., graduated in 2022
Thesis short title: "Aerosols and VOCs during Polygel® application"
 - Logan Tipton, M.S., graduated in 2021
Thesis short title: "Emissions from pulsed TIG welding"

Advised as committee member (by last name)

Dexter Adams, PhD, Ryan Bellacov, PhD, Chandrashekhar Choudhary, PhD, Reshmasri Deevi, M.S., Jiajian Ding, M.S., Deepishikha, Ola, M.S., Alyssa Yerkesen, M.S., Rachel Tumbleson, PhD.

Advised as an external committee member (department/school)

Jinho Lee, PhD (University of Texas Health Sciences Center)

Occupational and Environmental Health, University of Oklahoma Health Sciences Center

Advised as committee chair (by final date)

- Marcio Bezerra, Ph.D., graduated in 2020
Dissertation short title: "*Innovative assessment and control of Welding Fume*"
- Jacob Bartels, Ph.D. candidate, graduated as MS in 2019
Dissertation short title: "*Oxidative potential of occupational-related aerosols*"
- Shalayne Sims, M.S., NIOSH TPG trainee, graduated in 2018
Thesis short title: "*particle and gas emission from aluminum-TIG welding*"
- Kevin O'Neil, M.S., NIOSH TPG trainee, graduated in 2017
Thesis short title: "*Laser-generated airborne contaminants from cutting and engraving*"
- Timothy Bearden, MPH, US Army, graduated in 2017
- Tien Hoang, M.S., NIOSH TPG trainee, graduated in 2016
Thesis short title: "*Wellness and exposure of nail salon workers*"
- Robin Reddix, MPH, graduated in 2015

Advised as committee member (by last name)

Sarah Abhayagoonawardhana, M.S., Kathleen Aithinne, Ph.D., Folasade Arkande, M.S., Aryal Subekchhya, M.S., Cory Buchanan, M.S., Casey Cooper Ph.D., Clay Enis, M.S., Doga Karyaldiz, M.S., Jack Kerr, M.S., Elizabeth Kruger, M.S., Abigail Lansdown, M.S., Michael Long, M.S., Curtis Martin, M.S., Taylor Saley, MPH., Anthony Van, M.S., Laine Wheatley, M.S.

Undergraduate Students

Occupational and Environmental Health, University of Oklahoma Health Sciences Center

- Emily Sample, B.S., mentored in summer 2019
- Jenna Schmitt, B.S., mentored in summer 2018
- Jose Muniz, B.S., mentored in summer 2016

Environmental Engineering Sciences, University of Florida

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- Jessica Sharby, B.S., mentored in 2012
 - Jianying Guan, B.S., mentored in 2012
 - Mark Kalivoda, B.S., mentored in 2011

SERVICES

Professional Associations & Conferences

Accreditation Board for Engineering and Technology

- Program evaluator, ANSAC (2025-present)

American Conference of Governmental Industrial Hygienists

- Board of Director (2026-2028)
- Board liaison for Physical Agents Committee (2026-2027)

Air & Waste Management Association

- Poster abstract reviewer (2013), platform paper award judge (2014)
- Secretary, University of Florida Student Section (2012-2013)

American Association for Aerosol Research

- Committee member: internet (2016-2019, chair in 2018)
- Working group member: mitigation and control technology (since 2011), indoor aerosol and aerosol exposure (since 2014), health-related aerosol (since 2014)
- Special task: chair of *Meet Aerosol Pioneers* (2018), social media special taskforce (since 2018)
- Tutor lecturer (2016)
- Student poster judge (2013-2015)
- Annual meeting session chair (2012-2014, 2016-2018)
- Founding president, University of Florida Student Section (2011-2012)
- Faculty advisor, AAAR University of Cincinnati student chapter (2022-present)

American Industrial Hygiene Association

- AIHA Board Nominating Committee (2024-present)
- AIHA Named Awards Selection Committee (2026-present)
- Faculty advisor, AIHA University of Cincinnati student chapter (2021-present)
- Secretary (2015-2016), vice chair (2016-2017), chair (2017-2018) of Aerosol Technology Committee
- David Swift Award review (2018-2024)
- NIOSH Alice Hamilton Award (2024)
- Conference Program Committee member (2017-2020)
- Conference PDC and technical session reviewer (2016-2018)
- Student poster abstract reviewer (2016-2018, 2026)
- American Industrial Hygiene Foundation Scholarship Advisory Committee member (2017-2019)
- President of Oklahoma Local Section (2018-2019)

American Public Health Association

- Student poster judge (2015)

Board for Global EHS Credentialing

- Board of Director (2026-2029)

International Occupational Health Association

- Technical abstract reviewer (2018)

National Occupational Research Agenda (NORA)

-
- Manufacturing council (since 2020)
 - Construction council (since 2020)

Editorial Board

- Co-Editor for Occupational Health Section, *Current Environmental Health Reports*, since Jan 2025.
- Guest editor for special issue "Linking Indoor Air Quality to Occupational and Environmental Exposure", *Atmosphere*, Feb 2024
- Guest editor for special issue "Aerosols from Conventional and Emerging Sources: Emission, Exposure, Toxicity and Respiratory Effects", *Toxics*, Oct 2022
- Guest editor for special issue "Emission and Exposure of Aerosols and Gases in Occupational Environment", *Atmosphere*, Dec 2021

Ad-hoc Reviewer

Journals: Aerosol and Air Quality Research (5)
(counts) Aerosol Science & Technology (12)
AIMS Environmental Science (2)
Annals of Work Exposures and Health, formerly known as Annals of Occupational Hygiene (8)
Atmosphere (3)
Behavioral Sciences (1)
Building and Environment (3)
Chemical Engineering Journal (1)
Chemical Physics (3)
Chemical Research in Toxicology (5)
Chemosphere (2)
Critical Public Health (1)
Critical Reviews in Environmental Science and Technology (3)
Energy & Fuels (1)
Environmental Engineering Research (4)
Environmental International (1)
Environmental Pollution (1)
Environmental Science: Processes & Impacts, formerly known as Journal of Environmental Monitoring (17)
Environmental Research Letters (4)
Environmental Science & Technology (3)
Environmental Technology (2)
Food control (1)
Fuel Processing Technology (4)
Geology, Ecology, and Landscapes (1)
Indoor and Build Environment (2)
Industrial & Engineering Chemistry Research (1)
Industrial Health (3)

International Archives of Occupational and Environmental Health (10)
International Journal of Environment and Health (1)
International Journal of Environmental Research and Public Health (4)
International Journal of Environmental Technology and Management (1)
International Journal of Occupational and Environmental Health (4)
International Journal of Toxicology (4)
Journal of Chemical Health and Safety (1)
Journal of Engineering Manufacture (1)
Journal of Hazardous Materials (3)
Journal of Nanoparticle Research (2)
Journal of Occupational & Environmental Hygiene (39)
Journal of Physics D: Applied Physics (2)
Journal of the Air & Waste Management Association (3)
Journal of Xenobiotics (1)
Material Research Express (3)
Measurement Science and Technology (1)
Microchemical Journal (1)
PloS One (18)
RSC Advances (1)
Safety and Health at Work (2)
Science of The Total Environment (1)
Scientific Reports (1)
Sustainable Cities and Society (2)
Toxicology and Industrial Health (4)
Toxicology Research (1)
Toxics (1)

Grants:

Beijing Natural Science Foundation
CCHMC Pilot Project Program
CDC/NIOSH Intramural Grants
CDC/NIOSH Special Emphasis Panel
CURES Pilot Grants
National Geographic Society
National Science Foundation Graduate Research Fellowship
National Science Foundation SBIR
NIOSH pre-publication review
UC-ERC Pilot Grants
UIC PPRT Grants

Publishing:

Elsevier Science & Technology Books
Wiley-Blackwell

Colleges & Local

May 2025-present Member, College of Medicine Basic Science Department Special Taskforce
Sep 2024-present Member, College of Medicine ARPT Represented Committee
Nov 2023-present Member, College Committee on Graduate Education
Apr 2023-present Co-director, CEG Shared Equipment ESCAPE
Apr 2022-present DEPHS Radiation Authorized User
Aug 2022 Member, UC China Strategy Group
Apr 2022 Member, DEPHS Space Committee
July 2021-2022 UC International Fellow on Developing Strategic Partners
Apr 2021 Reviewer, UC Undergraduate Scholarly Showcase
Feb 2021 Member, DEPHS/UCCC Biostatistics Director Search Committee
Apr 2020-present Member, DEPHS Industrial Hygiene Faculty Search Committee
Mar 2020-present Member, DEPHS Environmental and Industrial Hygiene Admission Committee
Mar 2020-2023 Panelist, ERC Research Capacity Building Workshop
Sep 2018-2019 OUHSC Graduate College Representative (alternative) on Faculty Senate
Jun 2018-2021 OU College of Public Health Academic Appeal Board
Jul 2018-2021 Member, OUHSC Graduate College Preparing Future Faculty Committee
Jul 2018- Summer undergraduate research mentor, OK-INBRE
Jul 2017-2020 OUHSC Faculty Senator (also served on campus discrimination and harassment committee)
Jul 2016 Summer undergraduate research mentor, OK-INBRE
Mar 2016 Judge, OU GREAT Symposium graduate students oral competition
Jul 2015-2017 Mentor, OSCTR Summer research program
Mar 2015 Judge, OU GREAT Symposium postdoctoral fellow oral competition
Jun 2014-2017 Chair, OU College of Public Health Awards Committee.

Community Outreach

Aug 2021 First Lego League: Team Coach for Transportation Theme
Apr 2020 Mason Public School Enrichment Program: 3-D printing for kids, Mason, OH
Feb 2018 Engineer Career Show, Edmond, OK.

ACRONYMS IN THIS CV

(by alphabetical order)

AAAR American Association for Aerosol Research

ABET Accreditation Board for Engineering and Technology

ACGIH American Conference of Governmental Industrial Hygienists

AEESP Association of Environmental Engineering and Science Professors

AIDE Aerosol Instrument Development & Experiment

AIHA American Industrial Hygiene Association

AIHce American Industrial Hygiene Conference & Exposition

ANSAC Applied and Natural Science Accreditation Commission

APHA American Public Health Association

ARPT Academic Reappointment, Promotion, and Tenure

ASSP American Society of Safety Professionals

AWMA Air & Waste Management Association

BARS Bioaerosol Research & Studies

BWC Bureau of Workers' Compensation

CAPEES Chinese-American Professors in Environmental Engineering and Science

CCHMC Cincinnati Children's Hospital Medical Center

CDC Center for Disease Control and Prevention

CEG Center for Environmental Genetics

CHRAS Center for Health Related Aerosol Studies

CIH Certified Industrial Hygienist

CMMI Civil, Mechanical and Manufacturing Innovation

COM College of Medicine

COPH College of Public Health

COPHSA College of Public Health Student Association

CURES Center for Urban Responses to Environmental Stressors

CPH Certified in Public Health

CSP[®] Certified Safety Professional

DCEE Department of Chemical and Environmental Engineering

DEPHS Department of Environmental and Public Health Sciences

EPA Environmental Protection Agent

ERC Education and Research Center

ESCAPE Environmental Simulating Chamber for Aerosol and Particle Exposure

ESCTP Environmental Security Technology Certification Program

FDA Food and Drug Administration

FDOT Florida Department of Transportation

FL-AIHA Florida Local Section of AIHA

FL-AWMA Florida Section of A&WMA

FUME Fine & Ultrafine Metal Emission

GREAT Graduate Research Education And Technology Symposium

INBRE IDeA Network of Biomedical Research Excellence

ISES International Society of Exposure Science

ISSA International Social Security Association

LAESEC Laboratory for Aerosol Exposure Science and Engineering Control

MBA Master of Business Administration

MPH Master of Public Health

MS Master of Science

NEHA National Environmental Health Association

NIEHS National Institute of Environmental Health Sciences

NIGMS National Institute of General Medical Sciences

NIH National Institutes of Health

NIOSH National Institute for Occupational Safety and Health

NSF National Science Foundation

OCAST Oklahoma Center for the Advancement of Science and Technology

OCRID Oklahoma Center for Respiratory and

Infectious Diseases

OEH Occupational and Environmental Health

OHAO Occupational Hygiene Association of Ontario

OK-AIHA Oklahoma Section of AIHA

OSCTR Oklahoma Shared Clinical and Translational Resources

OTRC Oklahoma Tobacco Research Center

OU University of Oklahoma

OUHSC University of Oklahoma Health Sciences Center

OVS Ohio Valley Section

PDC Professional Development Course

PE Professional Engineer

Ph.D. Doctor of Philosophy

PHF Presbyterian Health Foundation

PFF Preparing Future Faculty

PRP Pilot Research Project

RTAC Respiratory Test Aerosol Chamber

SCC Stephenson Cancer Center

SCCAEPA Southern California Chinese American Environmental Protection Association

SNAME Society of Naval Architects and Marine Engineers

SWCOEH Southwest Center for Occupational and Environmental Health

TPG Training Program Grant

UC University of Cincinnati

U-M COHSE University of Michigan Center for Occupational Health and Safety Engineering

VPR Vice President for Research

WANG Workplace Aerosol and Gaseous Lab