

CURRICULUM VITA

Natalie M. Johnson, PhD**Education**

BS Biology, Texas A&M University, College Station, Texas. 2006 *Magna Cum Laude*

PhD Toxicology, Texas A&M University, College Station, Texas. 2010

Research Advisor: Dr. Tim Phillips

Dissertation: *Biomarkers of Exposure to Foodborne and Environmental Carcinogens: Enterosorbent Intervention in a High Risk Population*

Postdoctoral Toxicology, Johns Hopkins University, Baltimore, Maryland. 2013

Research Advisors: Dr. Tom Kensler and Dr. John Groopman

Professional Experience

2024-current Chair, Interdisciplinary Program in Toxicology, Texas A&M University

2019-current Associate Professor, Department of Environmental & Occupational Health, Texas A&M University School of Public Health

2023-current Deputy Director, Texas A&M Center for Environmental Health Research (TiCER)

2016-2024 Vice Chair, Interdisciplinary Program in Toxicology, Texas A&M University

2014-current Co-director, Program on Asthma Research and Education, Texas A&M University School of Public Health

2013-2019 Assistant Professor, Department of Environmental & Occupational Health, Texas A&M University School of Public Health

2010-2013 Postdoctoral Fellow, Department of Environmental Health Sciences, Johns Hopkins University Bloomberg School of Public Health

2012 Johns Hopkins University/Notre Dame of Maryland University Postdoctoral Teaching Fellow

2006-2010 Graduate Assistant, Department of Veterinary Integrative Biosciences, Texas A&M University College of Veterinary Medicine and Biomedical Sciences

2007-2009 NSF GK-12 Fellow, Partnership for Environmental Education and Rural Health (PEER), Texas A&M University College of Veterinary Medicine and Biomedical Sciences

Honors and Awards

2021 Presidential Impact Fellow, Texas A&M University

2020 Interdisciplinary Research Leaders Fellow, Robert Wood Johnson Foundation

2020 Reproductive and Developmental Toxicology New Career Scientist Award, Society of Toxicology

2018 Early Career Faculty Research Award, Texas A&M School of Public Health

2018 Distinguished Teaching Award, Texas A&M Association of Former Students

2018 Faculty Inductee, Delta Omega Public Health Honor Society

2018 Sustainability Champion Award, Texas A&M University

2017 Outstanding New Environmental Scientist Award, National Institute Environmental Health Sciences

2015 Best Paper Award, Texas A&M School of Public Health Faculty

2010 Vera W. Hudson & Elizabeth K. Weisburger Award, Society of Toxicology Women in Toxicology

2009 Betty Cook Karrh Endowed Scholar, Philanthropic Educational Organization (P.E.O.) Scholar Award

2008 Frank C. Lu Food Safety Award, Society of Toxicology

2007 Burdock Group Food Safety Award, Society of Toxicology

2006 Pfizer Undergraduate Student Travel Award, Society of Toxicology

2005 Phi Beta Kappa

RESEARCH

Peer-reviewed publications

^, indicates postdoctoral trainee; *, indicates doctoral trainee; #, indicates master's trainee; &, indicates undergraduate trainee.

2023

1. Drury NL^{*}, Mustapha T^{*}, Shore RA^{*}, Zhao J^{*}, Wright GA, Rodrigues Hoffmann A, Talcott SU, Regan A, Tighe RM, Zhang R, **Johnson NM**. Maternal exposure to ultrafine particles enhances influenza infection during pregnancy. *Particle and Fibre Toxicol.* 2023; 20, 11.
2. Uwak I^{*}, **Johnson NM**, Mustapha T^{*}, Rahman M[#], Tonpay T[#], Regan A, Mendoza-Sanchez I. Quantifying changes in respiratory syncytial virus-associated hospitalizations among children in Texas during COVID-19 pandemic using records from 2006-2021. *Frontiers Pediatr.* 2023 11:1124316.
3. Oladayo O, Saitas M^{*}, Mustapha T^{*}, **Johnson NM**, Chiu W, Rusyn I, Robinson A, Presto A. Air pollutant patterns and human health risk following the East Palestine, Ohio train derailment. *Eviron Sci Technol Letters.* 2023; 10(8): 680-685.
4. Roh T, Regan AK, **Johnson NM**, Hasan NT, Trisha NF, Aggarwal A, Han D. Association of arsenic exposure with measles antibody titers in US children: Influence of sex and serum folate levels. *Environ Int.* 2023; 183: 108329.
5. Shore R^{*}, Behlen J^{*}, McBee D[&], Prayaga K[&], Haugen F[&], Craig L[&], Shields M, Mustapha T^{*}, Harvey N, **Johnson NM**. Lactational transfer of sulforaphane-N-acetylcysteine in vivo and in human breast milk. *Toxicol Appl Pharmacol.* 2023; 482:116796.
6. Uwak I^{*}, Shields M, Vallamsundar S, Ramani T, Aguilera J, Li W-W, Harvey N, Horney J, **Johnson NM**. Personal Exposure to Polycyclic Aromatic Hydrocarbons in the Vicinity of the U.S.-Mexico Border Crossings, a pilot study of Teachers in El Paso, Texas. *Texas Public Health Journal.* In press.

2022

7. Lau CH^{*}, Behlen JC^{*}, Myers A, Li Y^{*}, Harvey N, Wright G, Rodrigues Hoffmann A, Zhang R, **Johnson NM**. In utero Exposure to Ultrafine Particles Enhances Severity of Neonatal Respiratory Syncytial Virus Infection. *Environ Sci Technol.* 2022; 56(16):11527-11535.
8. Behlen JC^{*}, Lau CH^{*}, Pendleton DP^{*}, Li Y^{*}, Rodrigues Hoffmann A, Golding MC, Zhang R, **Johnson NM**. NRF2-Dependent Placental Effects Vary by Sex and Dose following Gestational Exposure to Ultrafine Particles. *Antioxidants.* 2022; 11(2):352.
9. Lau CH^{*}, Pendleton DP^{*}, Drury N^{*}, Zhao J, Li Y^{*}, Zhang R, Wright G, Rodrigues Hoffmann A, **Johnson NM**. Nrf2 Protects Against Neonatal Oxidative Stress and Altered Pulmonary T Cell Differentiation following in utero Ultrafine Particulate Matter Exposure. *Antioxidants.* 2022; 11(2):202.
10. Li Y^{*}, Zhao J, Gomez-Hernandez M, Lavalley M, **Johnson NM**, Zhang R. Functionality-Based Formation of Secondary Organic Aerosol from m-xylene Photooxidation. *Atmos Chem Phys*, 2022; 22, 9843–9857.
11. Mendoza-Sanchez I, Uwak I^{*}, Myatt L[#], Van Cleve A[&], Pulczynski J[#], Rychlik KA^{*}, Sweet S, Ramani T, Zietsman J, Zamora ML, Koehler K, Carrillo, **Johnson NM**. Maternal Exposure to Polycyclic Aromatic Hydrocarbons in South Texas, Evaluation of Silicone Wristbands as Personal Passive Samplers. *J Expo Sci Environ Epi.* 2022; 32(2):280-288.

2021

12. Behlen JC^{*}, Lau CH^{*}, Li Y^{*}, Dhagat P, Stanley JA, Rodrigues Hoffmann A, Golding MC, Zhang R, **Johnson NM**. Gestational Exposure to Ultrafine Particles Reveals Sex- and Dose-Specific Changes in Offspring Birth Outcomes, Placental Morphology, and Gene Networks. *Tox Sci.* 2021. 184(2):204-213.
13. Zhang R, **Johnson NM**, Li Y^{*}. Establishing the exposure-outcome relation between airborne particulate matter and children's health (Commentary). *Thorax.* 2021. thoraxjnl-2021-217915.
14. Casillas GA^{*}, **Johnson NM**, Chiu WA, Ramirez J, McDonald TJ, Horney JA. Polycyclic Aromatic Hydrocarbons in Houston Parks after Hurricane Harvey. *Environ Justice.* 2021; 1:14(4)277-287.

15. **Johnson NM**, Rodrigues-Hoffmann A, Behlen JC*, Lau C*, Pendleton D*, Harvey N, Shore R*, Li Y*, Chen J, Tian Y, Zhang R. Air Pollution and Children's Health—a Review of Adverse Effects Associated with Prenatal Exposure from Fine to Ultrafine Particulate Matter. *Environ Hlth Preven Med.* 2021;12;26(1)72.
16. Zhang X*, Zhao H, Horney J, **Johnson NM**, Saad F, Haider KS, Haider A, Xu X. Testosterone Deficiency, Long-term Testosterone Therapy, and Inflammation. *J Cardio Pharm Thera.* 2021; 26(6)638-647.
17. Uwak I*, Olson N, Fuentes A, Moriarty M#, Pulczinski J#, Lam J, Xu X, Taylor BD, Taiwo S, Koehler K, Foster M, Chiu WA, **Johnson NM**. Application of the Navigation Guide Systematic Review Methodology to Evaluate Prenatal Exposure to Particulate Matter Air Pollution and Infant Birth Weight. *EnvironIntl* 2021; 148:106378.
- 2020**
18. Zhang X*, Zhao H, Horney J, **Johnson NM**, Saad F, Haider KS, Xu X. Recent Testosterone Drop-off and Risk of Cardiovascular Events. *Aging Male.* 2020; 23(5):1611-1619.
19. Mustapha TA*, Chang RC, Garcia-Rhodes D#, Pendleton D*, **Johnson NM**, Golding MC. Gestational Exposure to Particulate Air Pollution Exacerbates the Growth Phenotypes Induced by Preconception Paternal Alcohol Use: a Multiplex Model of Exposure. *Environ Epigen.* 2020; 6(1), dvaa011.
- 2019**
20. Rychlik KA*, Secrest J*, Lau C*, Pulczinski JC#, Zamora ML, Leal J, Langley R#, Myatt L#, Raju M#, Chang C-A, Golding M, Rodrigues-Hoffmann A, Molina MJ, Zhang R, **Johnson NM**. *In utero* Particulate Matter Exposure Causes Offspring Pulmonary Immunosuppression. *PNAS.* 2019; 116(9):3443-48.
21. Wu G, Brown J, Zamora ML, Miller A, Satterfield MC, Meininger CJ, Steinhauser CB, Johnson GA, Burghardt RC, Bazer FW, Li Y*, **Johnson NM**, Molina MJ, Zhang R. Adverse Organogenesis and Predisposed Long-term Metabolic Syndrome from Prenatal Exposure to Fine Particulate Matter. *PNAS.* 2019; 116(24):11590-5.
22. Livingstone MC, **Johnson NM**, Roebuck BD, Kensler TW, Groopman JD. Serum miR-182 is a Predictive Biomarker for Dichotomization of Risk of Hepatocellular Carcinoma in Rats. *Mol Carcin.* 2019; 58(11):2017-25.
23. Wang M*, Hearon S*, **Johnson NM**, Phillips T. Development of Broad-Acting Clays for the Tight Sorption of Benzo[a]pyrene and Aldicarb. *Appl Clay Sci.* 2019; 168:196-202.
- 2018**
24. Zhang X*, **Johnson NM**, Carrillo G, Xu X. Decreasing Trend in Passive Tobacco Smoke Exposure and Association with Asthma in U.S. Children. *Environ Res.* 2018; 166:35-41.
25. Carrillo G, Perez Patron MJ, **Johnson NM**, Zhong Y, Lucio R, Xu X. Asthma Prevalence and School-related Hazardous Air Pollutants in the US-Mexico Border Area. *Environ Res.* 2018; 162:41-8.
26. Zamora ML, Pulczinski JC#, **Johnson NM**, Garcia-Hernandez R, Rule A, Carrillo G, Zietsman J, Sandragorsian B#, Vallamsundar S, Askariyeh MH, Koehler K. Maternal Exposure to PM_{2.5} in South Texas, a Pilot Study. *Sci Total Environ.* 2018; 628-29:1497-1507.
- 2017**
27. Livingstone MC, **Johnson NM**, Roebuck BD, Kensler TW, Groopman JD. Profound Changes in miRNA Expression during Cancer Initiation by Aflatoxin B1 and their Abrogation by the Chemopreventive Triterpenoid CDDO-Im. *Mol Carcin.* 2017; 56(11):2382-90.
- 2016**
28. Vallamsundar S, Askariyeh M, Zietsman J, Ramani T, **Johnson NM**, Pulczinski JC#, Koehler K. Maternal Exposure to Traffic-related Air Pollution across Different Microenvironments. *J Transpor Hlth.* 2016; 3(2), S72.
29. Shi J, Chen R, Yang C, Lin Z, Cai J, Xia Y, Wang C, Li H, **Johnson NM**, Xu X, Zhao Z, Kan H. Association between Fine Particulate Matter Chemical Constituents and Airway Inflammation: A Panel Study among Healthy Adults in China. *Environ. Res.* 2016; 150:264-8.

30. Sharma VK, **Johnson NM**, Cizmas LH, McDonald TJ, Hyunook K. A Review of the Influence of Treatment Strategies on Antibiotic Resistant Bacteria and Antibiotic Resistance genes. *Chemosphere*. 2016; 150:702-14.

2014

31. **Johnson NM**, Egner PA, Baxter V, Sporn MB, Sutter TR, Groopman JD, Kensler TW, Roebuck BD. Complete Protection Against Aflatoxin B1-induced Liver Cancer with a Triterpenoid: DNA Adduct Dosimetry, Molecular Signature and Genotoxicity Threshold. *Cancer Preven Res*. 2014; 7(7):658-65.
32. Kensler KH, Dolan P, Slocum S, **Johnson NM**, Ilic Z, Sell S, Groopman JD, Kensler TW, Egner PA. Genetic or Pharmacologic Zctivation of *Nrf2* Signaling Fails to Protect Against Aflatoxin Genotoxicity in Hypersensitive GSTA3 Knockout Mice. *Tox Sci*. 2014; 139(2):293-300.
33. Marroquín-Cardona A, **Johnson NM**, Phillips TD, Hayes AW. Mycotoxins in a Changing Global Environment: a review. *Food Chem Toxicol*. 2014; 69C:220-30.

2013

34. Mitchell NJ, Kumi J, **Johnson NM**, Dotse E, Marroquín-Cardona A, Wang JS, Jolly PE, Ankrah NA, Phillips TD. Reduction in the Urinary Aflatoxin M1 Biomarker as an Early Indicator of the Efficacy of Dietary Interventions to Reduce Exposure to Aflatoxins. *Biomarkers*. 2013; 18(5):391-8.
35. Taylor JF, Robinson A, Mitchell NJ, Marroquín-Cardona A, **Johnson NM**, Elmore SE, Romoser AA, Phillips TD. *In vivo* Efficacy of Ferrihydrite as an Enterosorbent for Arsenic: Short-term Evaluation in Rodents. *J Toxicol Environ Hlth A*. 2013; 76(3):167-75.

2012

36. Robinson A, **Johnson NM**, Strey A, Taylor JF, Marroquín-Cardona A, Mitchell NJ, Afriyie-Gyawu E, Ankrah NA, Williams JH, Wang JS, Jolly PE, Nachman RJ, Phillips TD. Calcium Montmorillonite Clay Reduces Urinary Biomarkers of Fumonisin B1 Exposure in Rats and Humans. *Food Add Contam*. 2012; 29(5):809-18.

2011

37. Marroquín-Cardona A, Deng Y, Garcia-Mazcorro JF, **Johnson NM**, Mitchell NJ, Tang L, Robinson A, Taylor JF, Wang JS, Phillips TD. Characterization and Safety of Uniform Particle Size NovaSil Clay as a Potential Aflatoxin Enterosorbent. *Appl Clay Sci*. 2011; 54(3-4):248-57.

2010

38. **Johnson NM**, Qian G, Xu L, Tietze D, Marroquín-Cardona A, Robinson A, Rodriguez M, Kaufman L, Cunningham K, Wittmer J, Guerra F, Donnelly KC, Williams JH, Wang JS, Phillips TD. Aflatoxin and PAH Exposure Biomarkers in a U.S. Population with a High Incidence of Hepatocellular Carcinoma. *Sci Total Environ*. 2010; 408(23):6027-31.
39. Williams JH, Grubb JA, Davis JW, Wang JS, Jolly PE, Ankrah NA, Ellis WO, Afriyie-Gyawu E, **Johnson NM**, Robinson A, Phillips TD. HIV and Hepatocellular and Esophageal Carcinomas Related to Consumption of Mycotoxin-prone Foods in sub-Saharan Africa. *Amer J Clin Nutr*. 2010; 92(1):154-60.

2009

40. **Johnson NM**, Afriyie-Gyawu E, Huebner HJ, Marroquín-Cardona A, Robinson A, Tang L, Xu L, Ankrah NA, Ofori-Adjei D, Jolly PE, Williams JH, Wang JS, Phillips TD. PAH Exposure in a Ghanaian Population at High Risk for Aflatoxicosis. *Sci Total Environ*. 2009; 407(6):1886-91.
41. Taylor JF, Robinson A, **Johnson NM**, Marroquín-Cardona A, Brattin B, Taylor R, Phillips TD. *In vitro* Evaluation of Ferrihydrite as an Enterosorbent for Arsenic from Contaminated Drinking Water. *Environ Sci Technol*. 2009; 43(14):5501-6.
42. Marroquín-Cardona A, Taylor JF, Hallmark CT, Deng Y, **Johnson NM**, Phillips TD. *In vitro* and *in vivo* Characterization of Mycotoxin-binding Additives used for Animal Feeds in México. *Food Add Contam*. 2009; 26(5):733-43.

2008

43. Afriyie-Gyawu E, Wang Z, Ankrah NA, Xu L, **Johnson NM**, Tang L, Guan H, Huebner HJ, Jolly PE, Ellis WO, Taylor R, Brattin B, Ofori-Adjei D, Williams JH, Wang JS, Phillips TD. NovaSil Clay Does not Affect the Concentrations of Vitamins A and E and Nutrient Minerals in Serum Samples from Ghanaians

- at High Risk for Aflatoxicosis. *Food Add Contam.* 2008; 25(7):872-84.
44. Wang P, Afriyie-Gyawu E, Tang Y, **Johnson NM**, Xu L, Tang L, Huebner HJ, Ankrah NA, Ofori-Adjei D, Ellis WO, Jolly PE, Williams JH, Wang JS, Phillips TD. NovaSil Clay Intervention in Ghanaians at High Risk for Aflatoxicosis: II. Reduction in Biomarkers of Aflatoxin Exposure in Blood and Urine. *Food Add Contam.* 2008; 25(5):622-34.
45. Afriyie-Gyawu E, Ankrah NA, Huebner HJ, Ofosuhene M, Kumi J, **Johnson NM**, Tang L, Xu L, Ofori-Adjei D, Williams JH, Wang JS, Phillips, TD. NovaSil Clay Intervention in Ghanaians at High Risk for Aflatoxicosis: I. Study Design and Clinical Outcomes. *Food Add Contam.* 2008; 25(1):76-87.
46. Phillips TD, Afriyie-Gyawu E, Williams JH, Huebner HJ, Ankrah NA, Ofori-Adjei D, Jolly PE, **Johnson NM**, Taylor JF, Marroquín-Cardona A, Xu L, Tang L, Wang JS. Reducing Human Exposure to Aflatoxin through use of Clay: a Review. *Food Add Contam.* 2008; 25(2):134-45.

Book chapters

1. Fox M, Koehler K, **Johnson NM**. Established and emerging effects of traffic-related air pollution. Khreis, Nieuwenhuijsen, Zietsman, Ramani (Eds.) *Traffic-related Air Pollution* Elsevier 2020.
2. **Johnson NM**, Carrillo G, Mehta RK. The academic and psychosocial impact of air pollution on children. Riccio (Ed.) *Pediatric Neurotoxicology: Academic and Psychosocial Outcomes*. Springer Science 2016.
3. Carrillo G, Mehta RK, **Johnson NM**. Neurocognitive effects of pesticides in children. Riccio (Ed.) *Pediatric Neurotoxicology: Academic and Psychosocial Outcomes*. Springer Science 2016.

Grant funding

External awards (Current)

- | | |
|---|-------------------|
| P42 ES027704 | 09/2022 – 08/2027 |
| National Institute of Environmental Health Sciences (NIEHS)
<i>Responding to air pollution in disasters (Project 2, Texas A&M Superfund Research Center)</i> . Total award \$1,029,635; Role PI | |
| Gulf Coast Research Program | 05/2023 – 04/2026 |
| National Academy of Sciences, Engineering, and Medicine (NASEM)
<i>Climate-LEAD: Climate Effects on Localized Environmental Health Disparities in Overburdened Texas Communities along Gulf Coast</i> . Total award \$7,462,922; Role Co-I | |
| Sub-contract (Downwinders at Risk) | 10/2022 – 10/2024 |
| Environmental Justice Data Fund
<i>Mapping Air Pollution Burdens in Dallas-Fort Worth</i> . Total award \$50,000; Role PI | |
| P30 ES029067 | 04/2019 – 03/2024 |
| National Institute of Environmental Health Sciences (NIEHS)
<i>Integrative Health Sciences Facility Core (IHSFC), Texas A&M Center for Environmental Health Research (TiCER)</i> . Total award \$1,098,221; Role Co-I IHSFC (PI, I. Rusyn) | |
| P42 ES027704 | 09/2022 – 08/2027 |
| National Institute of Environmental Health Sciences (NIEHS)
<i>Research Experience and Training Coordination Core, Texas A&M Superfund Research Center</i> . Total award \$397,690; Role Co-PI RETCC | |
| T32 ES026568 | 07/2022 – 08/2027 |
| National Institute of Environmental Health Sciences (NIEHS)
<i>Regulatory Science in Environmental Health and Toxicology</i> .
Total award \$2,282,659; Role Co-I and Director of Diversity in Training (PI, I. Rusyn) | |

Internal awards (Current)

- | | |
|---|-------------------|
| P42 ES027704 Texas A&M Superfund Research Center Pilot Project | 01/2023 – 06/2024 |
| <i>Novel Sorption Strategies for Per- and Polyfluoroalkyl Substances (PFAS) in Breast Milk</i> .
Total award \$23,000; Role PI | |

External awards (Previous)

- R01 ES028866 12/2017 – 11/2023
National Institute of Environmental Health Sciences (NIEHS)
Mechanisms of Particulate Matter Driven Infant Respiratory Disease. Total award \$2,068,455; Role: PI
- Interdisciplinary Research Leaders (IRL) Cohort 5 09/2020 – 08/2023
Robert Wood Johnson Foundation (RWJF)
Joppa Environmental Equity Project: Examining the impact of air pollution on community health. Total award \$345,600; Role: Co-PI
- R25 GM129873 08/2018 – 07/2023
National Institute of General Medical Sciences (NIGMS)
K-12 Educational Resources on Vaccine Biology and SARS-CoV-2 Vaccine Hesitancy
Total award \$1,314,371; Role Co-I (PI, J. Harlin)
- T32 ES026568 07/2016 – 08/2021
National Institute of Environmental Health Sciences (NIEHS)
Regulatory Science in Environmental Health and Toxicology.
Total award \$1,337,971; Role Co-I and Director of Diversity in Training (PI, I. Rusyn)
- R25 OD020219 07/2016 – 08/2021
National Institute of General Medical Sciences (NIGMS)
The MENTORS (Model Education Networks to Optimize Rural Science) Project. Total award \$1,300,911 – Co-I (PI R. Fuchs-Young)
- Internal awards (Previous)**
- Texas A&M Health Science Center Seedling Fund (2022-2023).
“Young lung” model to protect children’s health. Total award \$100,000; Role PI
- Houston Methodist Cancer Center Innovation Award (2021-2023).
Exploration of Early-Stage Biomarkers of Urothelial Cell Transformation Induced by Chronic Arsenic Exposure. Total award \$100,000; Role Co-I (PI, T. Roh)
- Texas A&M University Research Development Fund (2020-2022).
mRAPiD – Mobile Responding to Air Pollution in Disasters. Total award \$489,090 – PI
- P30 ES029067 Texas A&M Center for Environmental Health Research Pilot Grant (2020-2021).
Air pollution and the gut-lung axis: mitigation of particulate matter-induced pulmonary immune modulation through neonatal Bifidobacterium breve supplementation. Total award \$50,000 – PI
- P30 ES029067 Texas A&M Center for Environmental Health Research Pilot Grant (2020-2021).
Health Risks and Hazard Perception of Airborne Toxic Metals to Vulnerable Populations Neighboring the Houston Ship Channel. Total award \$50,000 – Co-I (PI Sh. Chellam)
- Texas A&M University T3 Award (2018-2020).
The Role of Malat1 and Nrf2 in Regulating Diabetogenic Effects of Early Life Air Pollution Exposure. Total award \$30,000 – PI
- U.S. Department of Transportation Center for Advancing Research in Transportation Emissions, Energy and Health (2017- 2019). *Border Crossing Emissions Impacts Study*. Total award \$100,000 – Co-I (PI T. Ramani)
- P30ES023512 Center for Translational Environmental Health Research Pilot Grant (2017-2018).
Maternal Benzene Exposure following Hurricane Harvey. Total award \$30,000 – PI
- P30ES023512 Center for Translational Environmental Health Research Pilot Grant (2017-2018).
Comparison of post-Harvey environmental sampling and wristband results and translation of results to community residents and groups. Total award \$30,000 – Co-I (PI R. Fuchs-Young)
- P30ES023512 Center for Translational Environmental Health Research Pilot Grant (2017-2018).
Potential of preconception exposures and intrauterine environmental factors in a multiplex model of environmentally-induced dysgenesis. Total award \$50,000 – Co-I (PI M. Golding)

Texas A&M School of Public Health Research Enhancement and Development Initiative Award

(2015-2016). *Impact of in utero aerosol exposure on asthma susceptibility*. Total award \$25,000 – PI

Texas A&M Transportation Institute; Texas A&M Health Science Center (2014-2016).

Strategic Research Development for Health and Transportation. Total award \$120,000 – PI

Texas A&M National Natural Science Foundation of China Collaborative Grant (2014-2016).

Biomarkers of Prenatal Exposure to Particulate Air Pollution in U.S. and Chinese Populations. Total award \$50,000 – PI

Invited Platform Presentations at National/International Conferences

^, indicates postdoctoral trainee; *, indicates doctoral trainee; #, indicates master's trainee; &, indicates undergraduate trainee.

1. **Johnson NM**. Air Pollutant Patterns following the East Palestine Train Derailment. 2023 Superfund Research Program Annual Meeting. Albuquerque, NM.
2. **Johnson NM**. Immunomodulatory effects of ultrafine particulate matter exposure during susceptible life stages. 2023. 50th Anniversary Japanese Society of Toxicology. Yokohama, Japan.
3. **Johnson NM**, Drury N*, Mustapha T*, Shore R*, Zhao J*, Wright G, Rodrigues Hoffmann A, Talcott S, Regan A, Tighe R, Zhang R. Ultrafine particulate matter exposure aggravates pulmonary response to influenza infection during pregnancy. 2022. International Particle Toxicology Conference. Santa Fe, NM.
4. **Johnson NM**, Rychlik KR*, Pulczynski JC#, Langley R#, Secrest J*, Zhang R, Rodrigues-Hoffmann A, Lau C*. Prenatal air pollution exposure and offspring pulmonary immunosuppression. 2018 Teratology Society Annual Meeting. Clearwater, FL.
5. **Johnson NM**, Pulczynski JC#, Rychlik KR*, Guo J, Shi W, Carrillo G, Zietsman J, Vallamsundar S, Koehler K, Levy M, Zhang R. Biomarkers of prenatal exposure to particulate air pollution. 2016 American Chemical Society National Meeting. Philadelphia, PA.
6. **Johnson NM**, Afriyie-Gyawu E, Robinson A, Marroquín-Cardona A, Tang L, Xu L, Ankrah N-A, Williams JH, Wang J-S, Phillips TD. Three-month clinical intervention trial with NovaSil clay in Ghanaians: reduction of urinary aflatoxin M₁ levels and no effect on serum micronutrients. 2010 Latin American Congress on Mycotoxins. Mérida, Mexico.
7. **Johnson NM**, Tietze D, Marroquín -Cardona A, Robinson A, Taylor J, Mitchell N, Qian G, Xu L, Rodriguez M, Kaufman L, Cunningham K, Wittmer J, Guerra F, Donnelly KC, Wang JS, Phillips TD. Association between tortilla, peanut and rice consumption and urinary aflatoxin M₁ levels in a U.S. population with an elevated incidence of liver cancer. 2010 Society of Toxicology Annual Meeting. Salt Lake City, UT.

Platform presentations at National/International Conferences

^, indicates postdoctoral trainee; *, indicates doctoral trainee; #, indicates master's trainee; &, indicates undergraduate trainee.

1. Day X*, Kendrick A, McDuffie J, Logan P, Muhammad T, Wagonner C, O'Quinn M, Schermbeck J, Ma P, **Johnson NM**. The Joppa Environmental Health Project: Application of a Community-based Participatory Research (CBPR) approach to facilitate action-oriented research on respiratory health disparities in environmental justice communities in Dallas, TX. 2023 Superfund Research Program Annual Meeting. Albuquerque, NM.
2. Lau C*, Garcia-Rhodes D#, Pendleton D*, Myers A, Secrest J*, Li Y*, Vargas T&, Zhang R, Rodrigues-Hoffmann A, **Johnson NM**. A mouse model of *in utero* ultrafine particulate matter exposure and infant respiratory syncytial virus disease. 2019 Transportation, Air Quality, and Health Symposium. Austin, TX.

Poster presentations at National/International Conferences

^, indicates postdoctoral trainee; *, indicates doctoral trainee; #, indicates master's trainee; &, indicates undergraduate trainee.

1. Vitucci E[^], Oladeji O, Presto A, Cannon C, **Johnson NM**. The Application of High-Resolution Mass Spectrometry and Non-targeted Analysis to Characterize VOCs Emitted from a Plastic Recycling Facility Fire. 2023 Superfund Research Program Annual Meeting. Albuquerque, NM.
2. Svetlik A^{*}, Hasan NT, Trisha NF, Roh T, **Johnson NM**. Association of PDGF-BB with Arsenic in vitro and in a South Texas Population. 2023 Superfund Research Program Annual Meeting. Albuquerque, NM.
3. Saitas M^{*}, Mustapha T^{*}, Vitucci E[^], Oladeji O, Tsai D, Chiu W, Rusyn I, Presto A, **Johnson NM**. Spatial Mapping of Volatile Organic Compounds During Remediation Efforts After the East Palestine Train Derailment. 2023 Superfund Research Program Annual Meeting. Albuquerque, NM.
4. Dinh K^{*}, Vitucci E[^], **Johnson NM**. Assessing the Respiratory Effects of PFAS Exposure in Human Bronchial Epithelial (16HBE) Cells. 2023 Superfund Research Program Annual Meeting. Albuquerque, NM.
5. Day X^{*}, Kendrick A, McDuffie J, Logan P, Muhammad T, Wagonner C, O'Quinn M, Schermbeck J, Ma P, **Johnson NM**. The Joppa Environmental Health Project: Application of a Community-based Participatory Research (CBPR) approach to facilitate action-oriented research on respiratory health disparities in environmental justice communities in Dallas, TX. 2023 American Association of Public Health Annual Meeting. Atlanta, GA.
6. Vitucci E[^], Behlen J, **Johnson NM**. Gestational Ultrafine Particulate Matter Exposure Alters the Fetal Lung Transcriptional Profile. 2023 Society of Toxicology Meeting.
7. Mustapha T^{*}, Zhao J^{*}, Wright G, Zhang R, Rodrigues Hoffman A, Johnson NM. Modulation of the Gut-Lung Axis by Ultrafine Exposure To Particulate Matter. 2023 Society of Toxicology Meeting.
8. Day X^{*}, Kendrick A, McDuffie J, Logan P, Muhammad T, Wagonner C, O'Quinn M, Schermbeck J, Ma P, **Johnson NM**. The Joppa Environmental Health Project: Application of Community-level PM_{2.5} monitoring to evaluate the air quality in a historic Freedmen's Town in South Dallas. 2023 Society of Toxicology Meeting.
9. Svetlik A^{*}, Mustapha T^{*}, Hasan N, Trisha N, **Johnson NM**, Roh T. A Translational Model Using *in vitro* Urinary Biomarkers to Inform Bladder Cancer Risk from Arsenic Exposure in South Texas. 2023 Society of Toxicology Meeting.
10. Saitas M^{*}, Mustapha T^{*}, Harvey N, Vitucci E[^], Sansom G, Robinson A, Cannon C, **Johnson NM**. Application of Hyperlocal Volatile Organic Compound Mapping in Environmental Justice Communities. 2023 Society of Toxicology Meeting.
11. Lampe O^{*}, Vitucci E[^], **Johnson NM**. Exposure of 16HBE Cells to High Levels of Diesel Particulate Matter and Impact of Oxidative Stress and Inflammation at 6- and 24- hour time points. 2023 Society of Toxicology Meeting.
12. Dinh K^{*}, Vitucci E[^], Johnson NM. Assessing the Respiratory Effects of PFAS Exposure in Human Bronchial Epithelial (16HBE) Cells. 2023 Society of Toxicology Meeting.
13. Prayaga K[&], Haugen F[&], Craig L[&], Shore R^{*}, Shields M, Vitucci E[^], Harvey N, **Johnson NM**. Quantification of Sulforaphane Metabolites in Human Breast Milk for Protection Against Infant Respiratory Toxicity. 2023 Society of Toxicology Meeting.
14. Mustapha T^{*}, Zhu R^{*}, Li D, Newman G, Sansom G, Chiu W, Robinson A, and **Johnson NM**. Spatially Dense Hazardous Air Pollutant Sampling through Mobile Monitoring in Environmental Justice Communities. 2022 Superfund Research Program Annual Meeting.
15. Ali M, **Johnson, NM**. *In Silico* Simulation of Ultrafine and Nanoparticles Toxicity Burdens in Laboratory Animals. 2022 Society of Toxicology Meeting.

16. Shore RA*, Behlen J*, McBee D[&], Lau, C*, **Johnson, NM**. Lactational Transfer of Sulforaphane to Activate *Nrf2* in Neonatal Mice. 2022 Society of Toxicology Meeting.
17. Lau C*, Pendleton D*, Drury N*, Zhao J, Li Y*, Zhang R, Wright GA, Rodrigues Hoffmann A, **Johnson NM**. *Nrf2* Protects against Neonatal Oxidative Stress and Altered Pulmonary T Cell Differentiation following In Utero Ultrafine Particulate Matter Exposure. 2022 Society of Toxicology Meeting.
18. Behlen J*, Lau C*, Pendleton D*, Li Y*, Rodrigues Hoffmann A, Golding MC, Zhang R, **Johnson NM**. Role of *Nrf2* and MALAT1 in Placental Inflammation and Bile Acid Metabolism Dysregulation from Gestational Exposure to Ultrafine Particles. 2022 Society of Toxicology Meeting.
19. Mustapha T*, Lau C*, Zhao J, Li Y*, Zhang R, Rodrigues Hoffman A, **Johnson NM**. Gestational Exposure to Ultrafine Particulate Matter: Cross Talk between Maternal Oxidative Stress, *Nrf2*, and the Gut Microbiome. 2022 Society of Toxicology Meeting.
20. Drury N*, Lau C*, Mustapha T*, Shore R*, Pendleton D*, Harvey N, Talcott SM, **Johnson NM**. The Toxicological Consequences of Ultrafine Particulate Matter Exposure on Influenza Infection Severity throughout Pregnancy: Role of the Immune System. 2022 Society of Toxicology Meeting.
21. Lau C*, Behlen J*, Myers A, Pendleton D*, Shore R*, Mustapha T*, Garcia-Rhodes D[#], Brar A[#], Vargas T[&], Secret J*, Li Y*, Zhang R, Wright G, Rodrigues Hoffmann A, Harvey N, **Johnson NM**. *In utero* ultrafine particulate matter exposure leads to enhanced murine neonatal RSV infection severity. 2021 Society of Toxicology Meeting.
22. Pendleton D*, Lau C*, Drury N*, Shore R*, Mustapha T*, Behlen JB*, McBee D[&], Zhang R, **Johnson NM**. Prenatal exposure to ultrafine particulate matter causes sustained growth suppression in offspring. 2021 Society of Toxicology Meeting.
23. Drury N*, Lau C*, Harvey N, McDonald T, Talcott S, Talcott S, **Johnson NM**. Role of gestational respiratory syncytial virus and ultrafine particle exposure on maternal infection and offspring outcomes. 2021 Society of Toxicology Meeting.
24. Uwak I*, Ramani T, **Johnson NM**, Jaikumar R, Aguilera J, Ramirez I, Whigham L, Li W, Vallamsundar S. Exposure assessment of traffic-related air pollution in El Paso, Texas, using personal and ambient monitoring. 2020 Society of Toxicology Meeting.
25. Lau C*, Shore R*, Pendleton D*, Behlen J*, Mustapha T*, Garcia-Rhodes D[#], Myers A, Brar A[#], Vargas T[&], Secret J*, Li Y*, Zhang R, Rodrigues Hoffmann A, Harvey N, **Johnson NM**. A mouse model of *in utero* ultrafine particulate matter exposure and infant respiratory syncytial virus disease. 2020 Society of Toxicology Meeting.
26. McBee D[&], Behlen J*, Mustapha T*, Pendleton D*, Drury N*, Lau C*, Shore R*, **Johnson NM**. Targeting *Nrf2* through lactational transfer of sulforaphane: Implication for respiratory syncytial virus severity in a neonatal mouse model. 2020 Society of Toxicology Meeting.
Pfizer undergraduate travel award.
27. Mustapha T*, Drury N*, Liu Y, McDonald TJ, **Johnson NM**. Direct quantification method for S-phenyl cysteine benzene oxide hemoglobin adduct. 2020 Society of Toxicology Meeting.
28. Shore R*, Lau C*, Mustapha T*, Pendleton D*, Drury N*, Harvey N, Li Y*, Zhang R, Rodrigues Hoffmann A, **Johnson NM**. The role of long non-coding RNA, MALAT1, in regulation of oxidative stress and inflammation in a mouse model of infant for respiratory syncytial virus infection. 2020 Society of Toxicology Meeting.
29. **Johnson NM**, Lau C*, Li Y*, Zhang R, Rodrigues-Hoffmann A. A mouse model of *in utero* ultrafine particulate matter exposure and infant respiratory syncytial virus disease. 2019 Cellular and Molecular Mechanisms of Toxicity Gordon Research Conference.
30. **Johnson NM**, Lam J, Uwak I*, Xu X, Taylor B, Foster M, Moriarty M[#], Taiwo S, Fuentes A, Olson N, Chiu W. Application of the Navigation Guide systematic review methodology and meta-analysis to evaluate the association between prenatal particulate matter air pollution exposure and birth weight. 2019 International Society of Environmental Epidemiology.

31. Mustapha TA^{*}, Chang C, Pendleton D^{*}, Garcia-Rhodes D[#], Secrest J, Li Y^{*}, Lee H[#], Brar A[#], Lau C^{*}, Rodrigues-Hoffmann A, Zhang R, Golding M, **Johnson NM**. Offspring growth inhibition in a multiplex model of paternal alcohol and maternal air pollution exposure. 2019 Society of Toxicology Annual Meeting.
 32. Uwak I^{*}, Lam J, Xu X, Taylor B, Foster M, Moriarty M[#], Taiwo S, Fuentes A, Olson N, Chiu W, **NM Johnson**. Application of the Navigation Guide systematic review methodology to evaluate the association between prenatal particulate matter air pollution exposure and birth weight. 2019 Transportation, Air Quality, and Health Symposium.
 33. Van Cleve A[&], Pulczynski JC[#], Luo Y-S, Myatt L[#], Rychlik KA^{*}, **Johnson NM**. Maternal exposure to polycyclic aromatic hydrocarbons in South Texas. 2018 Society of Toxicology Meeting.
 34. Cantu S[#], Umah C[#], Johnson NM. Environmental factors and elevated cancer incidence in South Texas. 2018 Advancing the Science of Cancer in Latinos Meeting.
 35. Rychlik KA^{*}, Pulczynski JC[#], Zamora M, Zhang R, **Johnson NM**. Decreased offspring weight, length, and immune response in BALB/cJ mice following inhaled particulate matter exposure during gestation. 2017 Teratology Society Annual Meeting.
 36. Rychlik KA^{*}, Pulczynski JC[#], Cardenas A, Myatt L[#], Roman-Cruz V[#], Secrest J^{*}, Zamora M, Langley R[#], Raju M[#], You D, Cormier S, Zhang R, **Johnson NM**. Strain-dependent inflammatory responses in a mouse model of intrauterine particulate matter air pollution exposure. 2017 Society of Toxicology Meeting.
 37. Lam J, **Johnson NM**, Koehler K, Chang H. Internal Validity of Air Pollution Assessment Methods: A tool for Evaluating Risk of Bias. 2017 International Society for Environmental Epidemiology Meeting.
 38. Pulczynski JC[#], Rychlik KA^{*}, Ramani T, McDonald TJ, Carrillo G, Koehler K, Zietsman J, **Johnson NM**. Validation of novel biomarkers of traffic-related ambient air pollution exposure in a susceptible South Texas population. 2016 American Chemical Society National Meeting.
 39. Rychlik KR^{*}, Pulczynski JC[#], Zamora ML, Zhang R, **Johnson NM**. Physiologic and epigenetic alterations in offspring following prenatal exposure to particulate matter air pollution in two strains of mice. 2016 American Chemical Society National Meeting.
 40. Livingstone MC, Roebuck BD, **Johnson NM**, Kensler TW, Groopman JD. Temporal trends in microRNAs during subchronic aflatoxin dosing and modulation by the chemopreventive oleanane triterpenoid, CDDO-Im. 2016 American Association for Cancer Research Annual Meeting.
 41. Rychlik KA^{*}, Pulczynski JC[#], **Johnson NM**. Strain differences in DNA methylation and hydroxymethylation following prenatal exposure to diesel exhaust particulate matter. 2016 Society of Toxicology Meeting.
- (First-author only as trainee)
42. **Johnson NM**, Egner PA, Dolan PM, Groopman JD, Kensler TW. The synthetic triterpenoid CDDO-Im modulates aflatoxin B1 metabolism in the rat. 2012 20th Annual Scientific Workshop for the NIEHS Training Program in Environmental Health Sciences.
 43. **Johnson NM**, Tietze D, Marroquín-Cardona A, Afriyie-Gyawu E, Rodriguez M, Kaufman L, Cunningham K, Wittmer J, Guerra F, Donnelly KC, Wang JS, Phillips TD. Urinary aflatoxin M₁ and 1-hydroxypyrene levels in a U.S. population compared to a high-risk population in Ghana. 2009 Society of Toxicology Meeting.
 44. **Johnson NM**, Marroquín-Cardona A, Robinson A, Taylor J, Afriyie-Gyawu E, Xu L, Tang L, Ankrah NA, Ofori-Adjei D, Williams JH, Wang JS, Phillips TD. Urinary 1-hydroxypyrene: a biomarker of polycyclic aromatic hydrocarbon exposure in a Ghanaian population. 2008 Society of Toxicology Meeting.
 45. **Johnson NM**, Taylor J, Robinson A, Marroquín-Cardona A, Afriyie-Gyawu E, Huebner H, Xu L, Tang L, Ankrah NA, Williams JH, Wang JS, Phillips TD. Enterosorbent therapy for humans at high risk for environmental exposures. 2007 NIEHS Superfund Basic Research and Training Program Meeting.
 46. **Johnson NM**, Robinson A, Sarpong N, Afriyie-Gyawu E, Huebner H, Xu L, Tang L, Ankrah NA, Ofori-Adjei D, Williams JH, Wang JS, Phillips T.D. Three-month clinical intervention trial with NovaSil clay in Ghanaians: reduction of urinary aflatoxin M₁ levels. 2007 Society of Toxicology Meeting.

47. **Malek N (Johnson)**, Huebner H, Afriyie-Gyawu E, Taylor J, Dash B, Phillips TD. Development of a noninvasive immunoaffinity based assay to prescreen populations exposed to dietary aflatoxins. 2006 Society of Toxicology Meeting.

Invited research presentations (webinars)

- April 2023 Superfund Research Program Community Engagement Core/Research Translation monthly webinar. “Mapping Air Pollution Burdens in Dallas-Fort Worth.”
- April 2023 Superfund Research Program Progress in Research webinar. “Responding to Air Pollution in Disasters.”
- June 2023 Superfund Research Program Community Engagement Core/Research Translation monthly webinar. “Air Pollution and Disasters: Responding to the East Palestine Train Derailment.”
- June 2023 National Academy of Sciences, Engineering, and Medicine Developing Wearable Technologies to Advance Understanding of Precision Environmental Health – A Workshop. “Wearable Technologies and Personalized Exposure Assessment.”
- Sep 2023 National Academies’ Committee on Toxicology Meeting. “Wearable Technologies and Personalized Exposure Assessment.”
- Oct 2023 State Risk Assessors Quarterly Teleconference. “Air Pollution and Disasters: Responding to the East Palestine Train Derailment.”

Invited research presentations (seminars)

National:

- 2023 Platform. NIEHS Outstanding New Environmental Scientist Meeting. “Mechanisms of Particulate Matter Driven Infant Respiratory Disease.”
- 2023 Seminar. University of Colorado, Department of Pharmaceutical Sciences. “Air pollution and susceptibility – early life exposures, environmental justice and disaster response.”
- 2023 Seminar. University of Texas Arlington, Department of Earth & Environmental Sciences. “Air Pollution and Disasters.”
- 2021 Seminar. University of North Texas, Department of Biological Sciences. “Tiny particles, enduring effects: Modeling prenatal exposure to ultrafine PM and infant health risks.”
- 2020 Seminar. Baylor College of Medicine, Department of Molecular and Cellular Biology. “Tiny particles, enduring effects: Modeling prenatal exposure to ultrafine PM and infant health risks.”
- 2020 Seminar. University of Texas at Arlington, Department of Earth and Environmental Science. “Impact of air pollution on infant respiratory syncytial virus infection.”
- 2020 Seminar. University of New Mexico, Department of Pharmaceutical Sciences. “Impact of particulate matter air pollution on infant respiratory syncytial virus infection.”
- 2020 Platform. NIEHS Outstanding New Environmental Scientist Meeting. “Mechanisms of Particulate Matter Driven Infant Respiratory Disease.”
- 2018 Seminar. George Washington University, Milken Institute School of Public Health, Department of Environmental and Occupational Health. “Early life air pollution exposure and infant respiratory disease.”
- 2018 Seminar. Louisiana State University School of Veterinary Medicine, Department of Comparative Biomedical Sciences. “Early life air pollution exposure and infant respiratory disease – starting a research program as an assistant professor.”
- 2018 Platform. NIEHS Outstanding New Environmental Scientist Meeting. “Mechanisms of Particulate Matter Driven Infant Respiratory Disease.”
- 2015 Seminar. Nanjing University School of the Environment, Nanjing, China. “Prenatal exposure to particulate air pollution and epigenetic changes.”
- 2015 Platform & Session Chair. China-U.S. Relations Conference, Houston, TX. “Intersection of infectious disease and environmental health: a global perspective on clean air and safe food and water.”

Regional/Local:

- 2023 Seminar. Texas A&M Department of Veterinary Pathobiology. “Untangling air pollution and viral interactions to improve maternal and child health.”
- 2022 Seminar. Texas A&M Department of Veterinary Physiology and Pharmacology. “Mechanisms of Particulate Matter Driven Infant Respiratory Disease.”
- 2020 Seminar. Texas A&M College of Nursing. “Impact of air pollution on infant respiratory syncytial virus infection.”
- 2019 Seminar. Texas A&M Department of Veterinary Pathobiology. “The role of particulate matter air pollution and oxidative stress in a mouse model of infant respiratory syncytial virus infection.”
- 2019 Platform. Harris County One Health Conference. “One health – the environmental impact.”
- 2018 Platform. Texas A&M Interdisciplinary Program in Toxicology Annual Regulatory Science Symposium. “Mechanistic insights into air pollution and health.”
- 2017 Seminar. Texas A&M Interdisciplinary Faculty in Reproductive Biology. “Prenatal air pollution exposure and childhood respiratory disease.”
- 2016 Seminar. Texas A&M Department of Atmospheric Sciences. “Prenatal air pollution exposure and childhood asthma.”
- 2015 Seminar. Texas A&M School of Public Health Program in Maternal & Child Health. “Early life air pollution exposure and childhood asthma.”
- 2015 Speaker. Texas A&M Transportation Institute and Texas A&M Health Science Center Strategic Research Development for Health and Transportation. “Exposure to traffic-related air pollution during critical windows.”
- 2014 Seminar. Texas A&M University Center for Epigenetics & Disease Prevention. “Prenatal air pollution exposure, epigenetics and asthma.”
- 2014 Speaker. Texas A&M University International Advisory Board Meeting. “Addressing air pollution from South Texas to China.”
- 2014 Speaker. Texas A&M Transportation Institute Strategic Research Program on Health and Transportation. “Traffic-related air pollution near the Texas-Mexico border.”
- 2013 Seminar. Texas A&M University Interdisciplinary Program in Toxicology. “Chemoprotection against aflatoxin-induced hepatocellular carcinoma.”

Invited educational presentationsNational:

- 2021 Panelist. Society of Toxicology Annual Meeting Expert Panel for Undergraduates.
- 2020 Speaker. Georgia State University, School of Public Health. EMPOWER Virtual Forum
- 2019 Speaker. NIEHS Training Directors’ Meeting. “Innovative Approaches in Training: Moving Beyond the Didactic.”
- 2019 Organizer and Panelist. Society of Toxicology Annual Meeting Career Development Symposium, “Stepping out of the lab: opportunities for graduate student internships in toxicology.”
- 2018 Webinar Organizer and Panelist. Society of Toxicology Graduate Education Committee, “Stepping out of the lab: opportunities for graduate student internships in toxicology.”
- 2018 Panelist. Society of Toxicology Committee for Diversity Initiatives Undergraduate Education Program, “Applying for graduate school - an academic adviser’s perspective.”
- 2016 Panelist. Earth Day Texas, Dallas, TX. “Air Quality in Texas.”
- 2012 Panelist. Society of Toxicology Committee for Diversity Initiatives Undergraduate Education Program, “What is graduate school and what can I expect.” (Since 2008)

Regional/Local:

- 2022/23 Speaker. Texas A&M University System Louis Stokes Alliance for Minority Participation Summer Workshop: “Preparing a competitive F31 Application.”
- 2021 Speaker. Texas A&M Public Health Student Organization. “Pathways to Public Health.”

- 2020 Panelist. Brazos Valley Action Group, Sierra Club. “Gibbons Creek coal plant - Fighting Goliath film screening.”
- 2020 Panelist. Texas A&M Sustainability and Climate Action (SACA) Panel Discussion. “Gibbons Creek coal plant - Air and water pollution from coal-fired power plants.”
- 2020 Speaker. Texas A&M American Medical Student Association (AMSA). “How the environment influences our health.”
- 2020 Speaker. Texas A&M College of Veterinary Medicine and Biomedical Science Graduate Student Association. “Giving effective virtual presentations.”
- 2019 Organizer and panelist. Texas A&M University Public Health Week Symposium. “Re-thinking plastics: in our products, our oceans, and our bodies.”
- 2019 Speaker. Texas A&M Women and Science and Engineering Conference. “Writing grants and addressing Valentine’s cards.”
- 2019 Speaker. Texas Department of State Health Services Public Health Funding and Policy Committee Meeting. “One health concept.”
- 2019 Panelist. 16th Annual Pathways Symposium. “Preparing for graduate school.”
- 2018 Panelist. Texas A&M Research Development, “NIH specific aims clinic.”
- 2017 Speaker. Texas A&M University Memorial Student Center Freshman Leadership International Student Organization. “Health effects of air pollution and impact on climate change.”
- 2015 Panelist. Texas A&M University Student One Health Association. “One health in action” (Since 2014)
- 2014 Texas A&M School of Public Health Epidemiology Student Organization, “Special topics in environmental health.”
- 2014 Panelist. Texas A&M School of Public Health MPH Career Development Series, “Pursing a doctoral degree: paths and perspectives.”

Outreach presentations for K-12 students/teachers

- 2020/21 Summer Educator Fellowship Program for Teachers (MENTORS Project). Texas A&M University College Station, TX. “You are what you breathe: Measuring exposure to air pollution.”
- 2019 Health Ambassadors (SHARE Program, MENTORS Project). Med High and Mercedes High School Mercedes, TX. “E-cigarettes, air pollution and health.”
- 2012 Expanding Your Horizons, Career Discovery Day for middle school girls. Stevenson University, Stevenson, MD. “Crime scene investigators.”
- 2009 Expanding Your Horizons, 6th Grade Girls Conference. Texas A&M University College Station, TX. “Crime scene investigators.” (Since 2008)
- 2007 NSF GK-12 Southwest Regional Conference, “Motion impossible: hands-on activity for teaching potential and kinetic energy to middle school students using an inquiry-based teaching method.”

Teaching

Course Instructor

- PHEO 630 Environmental Diseases (graduate) (2013-2023)
- PHEO 681 Toxicology Journal Club (graduate) (2019-2023)
- PHEO 680 Public Health Capstone (graduate) (2016-2017)

Guest Lecturer

- PHEB 621 Foundations in Maternal and Child Health (graduate) (2018; 2023)
- Broad Street Learning Community (undergraduate) (2019-2020)
- PHEO 610 Environmental Toxicology (graduate) (2014-2020)
- BIMS 110 One Health in Action (undergraduate) (2016-2019)
- PHLT 301 Orientation to Public Health (undergraduate) (2016-2018)
- PHPM 639 Global Health (graduate) (2015-2016)

PHEO 615 Environmental Measures (graduate) (2014-2017)
HPCH 603 Social & Behavioral Determinants of Health (graduate) (2015)
SRPH 680 Public Health Capstone (graduate) (2014)
CVEN 406 Environmental Protection & Public Health (undergraduate) (2013)

Mentoring

Junior Faculty:

1. Ping Ma, Associate Professor, Department of Health Promotion & Community Health, Texas A&M University, 2019-present

Postdoctoral/doctoral Teaching Mentor (Academy for Future Faculty Program):

1. Jiaqi Liu, Postdoctoral fellow, Interdisciplinary Program in Toxicology, 2018-2019
2. Alexander Blanchette, PhD student, Interdisciplinary Program in Toxicology, 2020-2021
3. Kelly Rivenbark, PhD student, Interdisciplinary Program in Toxicology, 2022-2023

Postdoctoral: (Primary or co-mentor)

1. Eva Vitucci. 2022-current (primary mentor)
2. Meichen Wang. 2021-current (co-mentor K99 award)

Doctoral: (Primary advisor or co-chair)

Completed:

1. Kristal Rychlik. PhD Toxicology. 2014-2017 (chair)
Prenatal Exposure to Particulate Air Pollution and Effects on Postnatal Immune Response.
2. Inyang Uwak. DrPH Environmental Health. 2016-2020 (chair)
Air Pollution Exposure Assessment: Applications in Personal Air Monitoring Studies.
3. Drew Pendleton. PhD Toxicology. 2017-2021 (chair)
Effects of Ultrafine Particulate Matter on Offspring Growth and Development.
4. Carmen Lau. PhD Biomedical Sciences. 2018-2022 (chair)
The Role of Ultrafine Particulate Matter and Nrf2 in the Pathogenesis of Neonatal Respiratory Syncytial Virus Disease.
5. Jonathan Behlen. PhD Toxicology. 2019-2022 (chair)
Understanding the Mechanisms of Gestational Exposure to Ultrafine Particulate Matter on Placental Development and Dysfunction in a Murine Model.
6. Nicholas Drury. PhD Toxicology. 2018-2022 (co-chair)
Ultrafine Particulate Matter Exposure Aggravates Pulmonary Response to Influenza Infection during Pregnancy.
7. Ross Shore. PhD Toxicology. 2018-2022 (chair)
Lactational Transfer of Sulfuraphane to Activate Nrf2 in Neonatal Mice.
8. Toriq Mustapha. PhD Toxicology. 2018-2023 (chair)
Tools for Assessing Respiratory Risk in Vulnerable Populations.

In Progress:

1. Xiara Day. DrPH Public Health. Since 2021 (chair)
2. Mariana Saitas. PhD Toxicology. Since 2021 (chair)
3. Alexandra Svetlik. PhD Toxicology. Since 2021 (chair)
4. Olivia Lampe. PhD Toxicology. Since 2022 (chair)
5. Kaylyn Dinh. PhD Toxicology. Since 2022 (chair)

Doctoral: (Committee member)

Completed:

1. Yating Cheng. PhD Toxicology. 2013-2016
The Role of Long Noncoding RNAs in Cancer and Microbiota-derived Aryl Hydrocarbon Receptor Ligands
2. Long Chen. DrPH Environmental Health. 2013-2017
Ferrate(VI), Ferrate(V), and Ferrate(IV) Oxidation of Microcystin-LR, Flumequine, and Sulfadiazine: Oxidized Products
3. William Skiles. PhD Biomedical Sciences. 2014-2017
Environmentally Induced Epimutations, Their Persistence, and Potential Causality in the Development of Disease in the Offspring of Exposed Individuals
4. Jeremiah Secrest. PhD Chemistry. 2014-2019
Formation and Impacts of Atmospheric Aerosols
5. Melanie Warren. PhD Toxicology. 2014-2019
Population Variability and the Teratogenic Effects of Dioxin During Pregnancy
6. Meichen Wang. PhD Toxicology. 2014-2019
Development of Broad-Acting Enterosorbents for the Mitigation of Toxin Exposures During Outbreaks and Emergencies
7. Gaston Casillas. PhD Toxicology. 2015-2019
Characterizing Recreational Exposure to Contaminants in Houston, Texas Parks after Hurricane Harvey
8. Xiao Zhang. DrPH Environmental Epidemiology. 2016-2020
Testosterone Deficiency, Long-term Testosterone Therapy and Cardiovascular Risk: A Longitudinal Study
9. Ariela Thomas. PhD Food Science. 2016-2020
Studies of the Anti-Inflammatory Activities of Palmitoylethanolamide (PEA) and Potential Synergistic Combinations with Plant Polyphenols
10. Raed Alotaibi. DrPH Environmental Epidemiology. 2016-2020
Air Pollution and Diabetes Mellitus
11. Sara Heron. PhD Toxicology. 2017-2021
Development of Soil Amendments to Reduce Exposures to Hazardous Environmental Chemicals
12. Yixin Li. PhD Chemistry. 2018-2021
Understanding the Formation and Impacts of Atmospheric Aerosols
13. Alexandra Folcik. PhD Toxicology. 2017-2021
Electron Beam Technology for The Removal of The Cyanotoxin, Microcystin-Lr, And The Cyanobacteria, Microcystis Aeruginosa, In Contaminated Waters
14. Alina Roman-Hubers. PhD Toxicology. 2018-2022
Advancing Regulatory Decision Making of UVCB substances through Novel Analytical Methods
15. Alan Valdiviezo. PhD Toxicology. 2018-2022
Exposure Science Solutions for New Approach Methods in Regulatory Toxicology
16. Bidemi Fashina. PhD Soil and Crop Sciences. 2018-2022
Experimental and Computational Investigation of the Adsorption of Pyocyanin on Clay Minerals.
17. Ashli Brown. PhD Toxicology. Since 2019-2023
Improvement of Feed and Nutrient Security for Texas Feedlot Cattle Rations Containing Sulfur and Fumonisin
18. Alexandra Cordova. PhD Toxicology. PhD Toxicology. 2020-2023
An Analytical-to-In Vitro Approach: Deciphering the Bioactive Fraction of Complex Substances
19. Lydia Zhang. PhD Toxicology. PhD Toxicology. 2021-2023
Orphan Nuclear Receptor 4A1 (NR4A1) and NR4A2 as Drug Targets

In Progress:

1. Christopher Marbaniang. DrPH Environmental Health. Since 2020
2. Kelly Rivenbark. PhD Toxicology. PhD Toxicology. Since 2021
3. Amon Cox. PhD Toxicology. PhD Toxicology. Since 2021
4. Ruby Hernandez. DrPH Environmental Health. Since 2022

5. Jennifer Poole. PhD Toxicology. Since 2022
6. Evan Farkas. PhD Toxicology. Since 2021
7. Sahir Gagan. PhD Atmospheric Sciences. Since 2023
8. Martin Guerra. MS Landscape Architecture. Since 2023

Masters: (Primary advisor - thesis)

1. Jairus Pulczynski. MSPH Environmental Health. 2014-2016 (chair)
Exposure to Traffic-Related Air Pollution Among Pregnant Women in South Texas.

Masters: (Committee member - thesis)

1. Melinda Wilson. MS Toxicology. 2014-2016
Data Integration and Visualization for Transparent Communication in Read-Across: a Glycol Ether Case Study.
2. Kristin McCamy. MS Toxicology. 2018-2020
Characterization of the Neuroimmune Response of the Human 15q13.3 Microdeletion Syndrome in Mouse Model Challenged with LPS and Poly (I:C).
3. Samantha Goodman. MS Toxicology. 2019-2021
Epigenetic alterations induced by genotoxic occupational and environmental human chemical carcinogens: An update of a systematic literature review.
4. Abigail Schoeller. MS Toxicology. 2019-2021
Short chain fatty acids exhibit selective estrogen receptor downregulator (SERD) activity in breast cancer.

Masters: (Committee member - nonthesis)

1. Laura Gerik. MS Science and Technology Journalism. 2014-2016
2. Cody Maki. MS Toxicology (non-thesis). 2015-2017
3. Ava English. MS Science and Technology Journalism. 2019-2021
4. Christine Yeboah Agyapong. MS Education for Healthcare Professionals. 2021-2023.

Masters: (Primary advisor – MPH Directed Studies)

Completed:

1. Charlie Villamaria. 2013-2014
2. Brenda Sandragorsian. 2014-2016
3. Valery Roman-Cruz. 2015-2016
4. G’Nita Wright. 2015-2016
5. David Lala. 2015-2016
6. Louise Myatt. 2015-2017
7. Muppala Raju. 2016-2017
8. Chiamaka Umah. 2016-2017
9. Stacy Cantu. 2016-2017
10. Wenting Liu. 2016-2017
11. Rebecca Langley. 2016-2018
12. Dennis Garcia-Rhodes. 2017-2018
13. Cierra Carter. 2017-2018
14. Amandeep Brar. 2018
15. Hanngi Lee. 2018
16. Toriq Mustapha. 2018
17. Dylan Gaitlin. 2020
18. Mariya Rahman. 2020
19. Tanaya Tonpay. 2020
20. Ashleigh Brand. 2022

21. Johncross Nwadije. 2022
22. Aishat Olaoye. 2022
23. Joel Akinniranye. 2022
24. Nancy Chukwuma. 2022
25. Arthur Igbo. 2022
26. Adaeze Nwifo. 2022

Undergraduate: (Primary advisor - thesis)

1. Jairus Pulczynski. 2014 Undergraduate Research Scholar Thesis. *Development of an Analytical Procedure using 1-Nitropyrene Metabolites as Urinary Biomarkers of Exposure to Diesel Particulate Matter*
2. Allison Van Cleve. 2017 Undergraduate Research Scholar Thesis. *Development of a 1-Hydroxypyrene Quantification Method for Use as a Biomarker in Assessment of Polycyclic Aromatic Hydrocarbon Exposure*
3. Kaylyn Dinh. 2022 Undergraduate Research Scholar Thesis. *“Forever Chemicals” and Children’s Health – A Review of Adverse Effects associated with Infant Exposure to Per- and Polyfluoroalkyl Substances*

Undergraduate: (Primary advisor)

Completed:

1. Jairus Pulczynski, Biology. 2013-2014
2. Louise Myatt, Biomedical Sciences. 2015
3. Cierra Carter, Bioenvironmental Sciences. 2017
4. Allison Van Cleve, Chemistry. 2017-2018
5. Anna Lee, Biomedical Sciences. 2018
6. Tiffanie Vargas, Biomedical Sciences. 2018
7. Dylan McBee, Biochemistry. 2019-2020 *2020 Pfizer SOT Undergraduate Travel Award
8. Erin Sherman. Meteorology. 2020
9. Emily Curtis. Biology. 2021
10. Kaylyn Dinh. Biochemistry. 2021-2022
11. Lenore Craig, Biomedical Sciences. 2021-2022
12. Faith Haugen, Public Health. 2021-2022
13. Grace Knight, Engineering. 2023.
14. Keerthana Prayaga, Public Health. 2021-2023 *2023 SOT Undergraduate Travel Award

High School Students:

1. Gabriela Ramirez, South Texas High School for Health Professions. Summer 2019
2. Abril Reyes, Mercedes High School. Summer 2018

High School Teachers:

1. Jennifer Garza, Mercedes High School. Summer 2019

Professional Service

National and International Grant and Technical Document Reviews

NIH Study Section:

- Special Emphasis Panel/Scientific Review Group, ZES1 LWJ-D CA 2, Feb 2023
Systemic Injury by Environmental Exposure (SIEE) Scientific Review Group *ad hoc*, Jun 2022
Special Emphasis Panel/Scientific Review Group ZrG1 OBT-Q (70), Dec 2021
Special Emphasis Panel/Scientific Review Group ZES1 LWJ-S (KS) 1, Apr 2021
Special Emphasis Panel/Scientific Review Group ZES1 JAB-K T8 2, Sep 2020
Special Emphasis Panel/Scientific Review Group ZES1 JAB-D(C), Apr 2017
Special Emphasis Panel/Scientific Review Group ZES1 LWJ-J (U2), Nov 2015

Special Emphasis Panel/Scientific Review Group ZES1 LWJ-J (TG), Nov 2015
Special Emphasis Panel/Scientific Review Group ZES1 LKB (K9) 1, Nov 2015
Special Emphasis Panel/Scientific Review Group ZES1 LKB-D (C), Apr 2015

National Toxicology Program Technical Reviewer:

NTP Technical Report on the Toxicity Studies of *Aspergillus Fumigatus*, Dec 2020

International Reviews:

Action Medical Research for Children (UK), Aug 2022

French Foundation for Medical Research, Environment and Health Proposals, Oct 2020

Educational:

American Association of University Women (AAUW) Career Development Grant Reviewer, 2023

Philanthropic Educational Organization (PEO) Scholar Award Committee Chair, Chapter EQ, 2013-current

Professional Society Memberships

2023-current American Association for the Advancement of Science (AAAS)

2017-current Society for Birth Defects Research and Prevention (formerly Teratology Society)

2007-current Society of Toxicology (SOT)

National Committees

Society of Toxicology Membership Committee, elected 2023-2026

Society of Toxicology Graduate Education and Career Development Committee, appointed 2020-2023

Institute for Infectious Animal Diseases Advisory Board, appointed 2017-2020

Society of Toxicology Graduate Education Subcommittee, appointed 2018-2019

Other Leadership Positions

Past President, Society of Toxicology Lone Star Regional Chapter, 2023-2024

Senior Councilor, Society of Toxicology Inhalation and Respiratory Specialty Section, 2022-2023

Junior Councilor, Society of Toxicology Inhalation and Respiratory Specialty Section, 2021-2022

President, Society of Toxicology Lone Star Regional Chapter, 2022-2023

Vice President, Society of Toxicology Lone Star Regional Chapter, 2021-2022

- Annual Regional Meeting Planning Committee Chair 2021

Secretary, Society of Toxicology Lone Star Regional Chapter, 2020-2021

- Annual Regional Meeting Planning Committee 2020

Councilor, Society of Toxicology Lone Star Regional Chapter, 2019-2020

Host Mentor, Society of Toxicology Committee for Diversity Initiatives Undergraduate Education Program, 2017-2018

Councilor, Society of Toxicology Occupational and Public Health Specialty Section, 2015-2017

- Paper of the Year Committee Chair 2016

- Paper of the Year Committee Co-Chair 2015

Postdoc Representative, Society of Toxicology Committee for Diversity Initiatives, 2011-2013

Postdoc Representative, Society of Toxicology Food Safety Specialty Section, 2011-2013

Peer Mentor, Society of Toxicology Committee for Diversity Initiatives Undergraduate Education Program, 2008-2013

Journal Reviewer

- *Cancer Epidemiology, Biomarkers, and Prevention*

- *Chemosphere*

- *Environment International*
- *Environmental Health Perspectives*
- *Environmental Science & Technology*
- *European Respiratory Journal*
- *G3 Genes, Genomes, Genetics*
- *Inhalation Toxicology*
- *Journal of Exposure Science & Environmental Epidemiology*
- *Journal of Toxicology and Environmental Health*
- *PLOS ONE*
- *Reproductive Biology*
- *Science of the Total Environment*
- *Sustainability*
- *Texas Public Health Journal*
- *Toxicology in Vitro*
- *Toxicological Sciences*

University Committees

Texas A&M Institute for Genomic Medicine Advisory Board, 2020-present

Texas A&M Presidential Clinical Research Partnership Grant Review Panel, 2020, 2021

Texas A&M College of Veterinary Medicine and Biomedical Sciences Small Animal Hospital Visioning Committee, 2020

Texas A&M One Health Campus Council, 2015-2018

Texas A&M Health Science Center Environmental Management Committee, 2014-2017

Texas A&M Research Subcommittee, Distinguished Achievement Selection Committee, 2014

Interdisciplinary Program in Toxicology

Executive Committee (Chair), 2024-present

Executive Committee (Vice-chair), 2016-2024

Admissions Committee, 2016-present

School of Public Health Committees

Research Committee, 2014-present (Chair 2021-present)

Department of Epidemiology & Biostatistics Department Faculty Search Committee, 2022-2023

Department of Epidemiology & Biostatistics Department Head Search Committee, 2020-2021

Strategic Planning Committee for School of Public Health, 2020

Delta Omega, President 2019-2020

Dean Search Committee for School of Public Health, 2019

Faculty Search Committee for Health Promotion and Community Health Sciences, 2017

Founder/Faculty Advisor, Environmental Sustainability Group, 2013-2023

Wellness Committee, 2015-2018

Department of Environmental & Occupational Health Committees

Tenure & Promotion Committee

Faculty Search Committee, 2022-2024