

Bangning Zhang

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EDUCATION

- Doctor of Public Health (Epidemiology and Environmental Health Science)*** **12/2022**
Texas A&M University School of Public Health
Department of Epidemiology and Biostatistics, College Station, TX
- Master of Public Health (Environmental & Global Health)*** **05/2018**
University of Florida College of Public Health and Health Profession
Department of Environmental and Global Health, Gainesville, FL
- Bachelor of Science (Biomedical, Molecular, and Cellular Science)*** **12/2015**
Southeast Missouri State University College of Science
Department of Biology, Cape Girardeau, MO

PROFESSIONAL AND RESEARCH EXPERIENCE

- Innovative Teaching Fellows of Office of the Provost** **08/2024–Present**
Texas A&M University Office of Provost, 1248 TAMU 400 Bizzell Street, College Station, TX 77843
- Inaugural cohort of the [Innovative Teaching Fellows \(ITF\) Program](#) of artificial Intelligence (AI) Track
 - Formulating innovative teaching project proposal of AI utilization to the course
 - Developing and implementing innovative AI teaching techniques based on the project
 - Serving as expert evaluation group for the AI teaching technologies
- Instructional Assistant Professor** **08/2022–Present**
Texas A&M University School of Public Health, 212 Adriance Lab Rd, College Station, TX 77843
- Visiting Instructional Assistant Professor** **08/2022–08/2023**
Texas A&M University School of Public Health, 212 Adriance Lab Rd, College Station, TX 77843
- Instructor for graduate and undergraduate level courses: Public Health Data Management and Assessment, Principle of Epidemiology for Public Health, and M.P.H public health graduate capstone
 - Develop course teaching materials with other instructors
 - Develop multiple teaching skills and techniques with other professors for courses
 - New course design and development for PHLT 316 Data Management and Assessment
 - Implementing Innovative Method of AI to the course teaching
- Graduate Assistant Lecturer & Teaching** **08/2019–07/2022**
Texas A&M University School of Public Health, 212 Adriance Lab Rd, College Station, TX 77843
- Instructor on record and teaching assistant for both graduate and undergraduate level courses: Epidemiology in Public Health, Epidemiological Methods, Environmental and Global Health Epidemiology, Health Policy and Public Health Data Management and Assessment
 - Develop course teaching materials with other instructors
 - Develop multiple teaching skills and techniques with other professors for courses

Graduate Research Assistant (Epidemiology)**09/2018–Present****Texas A&M University School of Public Health, 212 Adriance Lab Rd, College Station, TX 77843**

- Conduct supervised and independent epidemiological and environmental health research programs and projects including studies at state and national levels
- Conduct statistical data analysis and produce results for the research projects
- Conduct systematic and meta-analysis reviews to assist with PI's research projects
- Develop manuscripts and abstracts for publication and conference poster events

Environmental Health Specialist and Epidemiologist**07/2017–08/2018****Florida Department of Health in Alachua County, 224 SE 24th St, Gainesville, FL 32641**

- Conducted epidemiological investigation and environmental health assessment on the increased arsenic contamination level in residential wells in North-Central Florida
- Performed field operations of water sample collection and questionnaires to examine arsenic levels in household wells and residential risk factors
- Conducted trend, spatial, and statistical analyses in a 10-year scale to examine and assess environmental risk factors for the increased contamination level of arsenic including precipitations and farmland activities
- Distributed well water arsenic filters to households with MCL
- Developed environmental health education campaign and materials to residents with contaminated wells to improve their public health awareness
- Implemented public health interventions and policy recommendations with Department's supervisory personnel to improve household drinking water safety and quality

Environmental Health Specialist and Epidemiologist Fellow**05/2017-07/2017****Florida Department of Environmental Protection Southwest District, 13051 Telecom Pkwy N, Temple Terrace, FL 33637**

- Participated in the U.S EPA's National Pollutant Elimination System (NPDES) program
- Performed NPDES storm water, industrial, domestic wastewater disposal inspection at constructional and industrial sites to ensure the compliance of NPDES regulations
- Enforced regulatory actions to parties who violated NPDES regulations to protect community water source
- Worked with NPDES permits applicants to develop pollution prevention plans
- Inspected NPDES storm water runoff prevention plans and issuing NPDES permits to applicants that in compliance with applicable federal and state laws
- Conducted regular meetings with senior department officials from the state to create and implement new environmental protection policies to minimize contamination from pollutant discharge

Undergraduate Research Assistant (Micro and Bacterial Biology)**05/2014–09/2014****Southeast Missouri State University Department of Biology, One University Plaza
Cape Girardeau, MO 63701**

- Studied the unique feature of termite's digestive system within its gut
- Examined bacteria and microbes inside termite's gut that digest complex sugars from wood
- Conducted time series analysis to analyze the biological mechanism of bacteria and microbes inside termite's gut

PUBLIC SERVICE ACTIVITIES

Selective Education Group Member of Texas A&M Health VISION360 Initiatives 05/2020–Present
Texas A&M Health Science Center, 8441 Riverside Pkwy, Bryan, TX 77807

- Adopt inclusive, relevant and affordable educational environment
- Implement Three-to-Five Year Goal and Ten-Year Vision for the VISION360 campaign
- Create personalized professional training, new degree, and dual degree programs across the state and nation to position graduates to lead teams in health care systems
- Design innovated health care delivery model
- Promote health professional schools of choice for top students committed to becoming leaders in competence and evidence-based practices in inter-professional setting
- Serve as committee member to advocate scholarship diversity to underserved student populations

Medical Reserve Corps Member Active
Harris County Public Health, Houston, TX, 2223 West Loop South, Houston, TX 77027 (On Call for Duty)

- Assist at COVID-19 stationary specimen collection sites and mobile testing units
- Execute outreach and lead training in response to COVID-19 in Texas
- Work as a language translator to assist racial minority groups with language barrier at COVID vaccine sites

Epiassist member Active
Texas A&M University School of Public Health, 212 Adriance Lab Rd, College Station, TX 77843

- Assist state, regional, and local health departments and Texas A&M University in Texas with outbreak investigations, disasters and emergencies, community health assessments
- Volunteer and assist COVID testing at Texas A&M University

RESEARCH AND PROFESSIONAL PROGRAMS AND PROJECTS

Analysis of Childhood Cancer's Spatial and Temporal Distributions and Assessing Potential Impacts of Gas and Oil Developments on Childhood Cancer in Texas
Role: Dissertation topic 02/2020–Present

Understanding Environmental and Health Data in Fifth Ward, Kashmere Gardens, and Denver Harbor
Supporting Agency: National Academy of Sciences, Engineering, and Medicine
Role: Research Volunteer 07/2021–Present

Associations between Ambient Air Pollution and Adverse Birth Outcomes in Florida
Supporting Agency: Florida Department of Health, National Institute of Health
Role: Graduate Research assistant/Co-Investigator 08/2018–01/2020

Potential Increased Risk of Trisomy 18 Observed After a Fertilizer Warehouse Fire in Brazos County, TX
Supporting Agency: School of Public Health, Texas A&M Health Science Center
Role: Graduate Research assistant/Co-Investigator 08/2018-12/2019

A Systematic Assessment of Carcinogenicity of Chemicals in Hydraulic-Fracturing Fluids and Flowback Water

Supporting Agency: School of Public Health, Texas A&M Health Science Center

Role: Graduate Research assistant/Co-Investigator

08/2018-12/2019

National Pollutant Elimination System (NPDES) Program

Supporting Agency: Florida Department of Environmental Protection

Role: Environmental Health Specialist fellow

05/2017–08/2017

PROFESSIONAL AND INTERDISCIPLINARY SKILLS

- Proficient data management skills of STATA, SAS, and spatial analysis tool SatScan
- Microbiology lab skills of cultivation, PCR test, bacterial staining and essential laboratory equipment use
- Persuasive communication skill of public health crisis, risks with publics
- Professional sample collection skills of field operation such as water, dust, and soil sampling
- Public health intervention implementation
- Community public health engagement teaching

CERTIFICATES AND TRAININGS

- Certified Environmental Regulatory School of Florida Department of Environmental Protection
- Certified HIPPA/Government Ethics training of Florida Department of Health
- Full Laboratory Safety Training with Southeast Missouri State University
- Certified training from Emergency Management Institute of Federal Emergency Agency (FEMA)
- Certified NIH Office of Extramural Research training
- Certified CITI Program for Group 1 and Group 2 by Texas A&M University and Florida Department of Health

PROFESSIONAL AFFILIATIONS

Harris County Medical Reserve Corps, TX	02/2021–Present
Texas A&M Health VISION360 Initiative	05/2020–Present
Society of Epidemiological Research	09/2019–Present
American Public Health Association	10/2017–Present

EDITORIAL BOARD

Peer Reviewer in PLOS ONE	11/2022-Present
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SELECTED PUBLICATIONS

Xu X, Zhang X, Carrillo G, Zhong Y, Kan H, **Zhang B**. A systematic assessment of carcinogenicity of chemicals in hydraulic-fracturing fluids and flowback water. *Environ Pollut*. 2019 Aug;251:128-136.

Xu, X., Zhang, X., Han, J., Adamu, Y., & **Zhang, B.** (2020). Potential Increased Risk of Trisomy 18 Observed After a Fertilizer Warehouse Fire in Brazos County and TX. *International journal of environmental research and public health*, 17(7), 2561.

Han, J., **Zhang, B.**, Zhang, X., Huang, K., Fang, V., & Xu, X. (2023). Associations between occurrence of birth defects and hydraulic fracturing activities in Barnett shale region, Texas. *Heliyon*, 9(4).