

# Bangning Zhang

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## EDUCATION

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- 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

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- 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

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**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

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**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**

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- 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**

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- 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**

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**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**

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**Peer Reviewer in PLOS ONE**

**11/2022-Present**

## SELECTED PUBLICATIONS

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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).