MELISSA FURLONG

mfurlong@arizona.edu | (520) 626-6925

Furlong, PhD, received her undergraduate degree from Duke University. She continued her education at Duke where she received her Master's in Public Policy, then traveled to the University of North Carolina at Chapel Hill where she completed her PhD in epidemiology. Furlong is currently an assistant professor in the Community, Environment, and Policy Department at the College of Public Health.

• Minor: Biostatistics



RESEARCH

Furlong's research currently examines the connection between environmental contaminants and chronic health outcomes, particularly neurological health. She is currently working with researchers in Atmospheric Sciences and Geography to develop a geo-spatial model of pesticide applications across Arizona. The data from this model is used to estimate pesticide exposure, one of Furlong's projects specifically using it for pregnant women and mothers to examine infant health outcomes.

PUBLICATION HIGHLIGHT

Furlong, Melissa A, et al. "Pre-Conception and First Trimester Exposure to Pesticides and Associations with Stillbirth." American Journal of Epidemiology, 16 July 2024, https://doi.org/10.1093/aje/kwae198. Accessed 8 Aug. 2024.

COMMUNITY CONNECTION

How does your lab research impact the health of communities in the Southwest region?

Furlong's research aims to help working class groups in the Southwest region, such as firefighters, frontline healthcare workers, and agricultural workers. Furlong and her team aim to help mothers and infants through their work in researching the effect of pesticides on infant health outcomes.

How does your research help to inform people of important protective actions to take?

Furlong's research helps inform working class groups and mothers of the impact of pesticides, heat, and water on their health and where these issues are prevalent.

FURLONG'S TEAM

Tuo Liu

- PhD candidate
- Major: Environmental Health Sciences

Research

- Firefighter Cancer Cohort Study examining health risks of fire exposure, differences between men & women firefighters
- AZHEROS risk of long COVID among frontline & essential workers

Rietta Wagoner

- PhD in Environmental Health Sciences
- 1st year post-doctoral research fellow

Current Projects

- Heat impacts and metal exposures on workers in Arizona
- Pilot Data combining weather data, drinking water, pesticide use registry & birth certificates

Audrey Yang

• PhD student in environmental services

Researct

- Pesticides mother's consumption prior to birth, infant health outcomes
- Water predictors of fecal indicators in drinking water
- Trauma Surgery geriatric triage factors, ketamine use in the ER, response to traumatic injury

Rebecca Ramos

• First-year PhD student

Current Project

- Climate change grant
- Harmonizing databases across AZ to look at the health effects of climate change and modifications of climate measures