Food Safety, Risk and Behaviour in Informal Markets: Evidence from Morocco

Project ID: 3573

Supervisory team

Main supervisor: Dr Selina Bruns (University of Bristol)
Second supervisor: Dr Sion Bayliss (University of Bristol)
Other supervisors: Dr. Anjali Purushotham (University of Sheffield) & Dr. Taha Lahrech (Institut Agronomique et Vétérinaire Hassan II)

Host institution: University of Bristol



Project description: Foodborne diseases (FBDs) are a major threat to global food security and public health, with low- and middle-income countries (LMICs) most affected. Over 90% of the global FBD burden falls on these regions, costing over $100 million annually (Grace, 2023; WHO, 2015). While formal supply chains are increasingly regulated, informal markets, the key nodes of rural food systems providing for the livelihood and consumption needs of people in LMICs, remain largely unmonitored, putting vulnerable populations at risk for complex health burdens.Meat, being perishable and prone to contamination at multiple points along the value chain, presents a critical food safety challenge. With global meat consumption rising, ensuring safe handling and processing is increasingly important. Furthermore, rural informal markets often sell fresh fruits and vegetables along with animal-sourced foods, thereby increasing the risks for quality loss in these non-meat foods sold in the markets. Despite the high risks, research on foodborne diseases in informal meat supply chains remains limited (Grace, 2015; 2023). This gap is due, in part, to the interdisciplinary nature of the issue, which requires expertise in both veterinary sciences and social science to identify sources of contamination and develop effective, locally tailored solutions.We aim to support a doctoral researcher who will integrate veterinary sciences with social science research to advance food safety in informal food value chains. The project will focus on mapping and analyzing a selected informal meat value chain in Morocco, with particular attention to identifying key points at which foodborne pathogens emerge, spread, and pose risks to consumers. This veterinary investigation will be complemented by an applied behavioral agricultural economics approach to design and evaluate practical interventions that encourage safer food handling practices. In doing so, we will elicit and incorporate the heuristics that consumers in informal markets currently use to navigate food safety risks. Potential interventions may include identifying cost-effective alternatives for safer practices, providing training, and developing certification schemes that enhance both food safety and market trust.This interdisciplinary project offers the opportunity for the student to work at the interface of veterinary science, microbiology, and social science, while contributing to applied solutions with real-world impact on public health and livelihoods.Morocco provides a unique context for this research. The region's emerging dynamics and cultural background,

coupled with its economic potential, offer an opportunity to implement effective interventions that could have broader implications for food safety practices across similar countries.

Our aim as the SWBio DTP is to support students from a range of backgrounds and circumstances. Where needed, we will work with you to take into consideration reasonable project adaptations (for example to support caring responsibilities, disabilities, other significant personal circumstances) as well as flexible working and part-time study requests, to enable greater access to a PhD. All our supervisors support us with this aim, so please feel comfortable in discussing further with the listed PhD project supervisor to see what is feasible.