Michael von Fricken, PhD

Assistant Professor, Department of Global and Community Health

Education

PhD, Environmental and Global Health, University of Florida

Key Interests

Emerging Infectious Diseases | Vector-borne Disease | Global Health | Genomics | Epidemiology | Public Health | Climate Change | Surveillance | Serology

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SELECT PUBLICATIONS

> von Fricken, M. E., *et al*. (2018). Estimated seroprevalence of *Anaplasma* spp. and spotted fever group *Rickettsia* exposure among herders and livestock in Mongolia. *Acta tropica, 177,* 179-185.

> von Fricken, M. E., *et al.* (2014). Age-specific malaria seroprevalence rates: a cross-sectional analysis of malaria transmission in the Ouest and Sud-Est departments of Haiti. *Malaria Journal, 13*(1), 361.

> Boldbaatar, B., *et al.* (2017). Distribution and molecular characteristics of rickettsiae found in ticks across Central Mongolia. *Parasites & Vectors, 10*(1), 61.

Research Focus

My research interests include vector-borne disease surveillance, control, and pathogen discovery. I have ongoing projects in Kenya, Mongolia, and Haiti focusing specifically on emerging pathogens transmitted by mosquitoes and ticks, and have conducted international training workshops on appropriate field methodology and data management for vector borne disease research. My work has had a direct impact guiding treatment policy of Rickettsial infections in Mongolia and the management of malaria in Haiti. I am currently a Research Associate with the Smithsonian Institution, National Zoological Park, and hold a Visiting Scientist designation with the US Army Medical Research Institute of Infectious Diseases (USAMRIID) Diagnostic Systems Division, based out of Fort Detrick, MD.

Current Projects

- Global Emerging Infections Surveillance - DoD- A Vector Mapping of Ticks and Tick-Borne Pathogens of Mongolia. This study aimed to isolate and discover high consequence tick pathogens in Mongolia, to develop vaccines, diagnostic assays, and a stronger epidemiological profile of the region.

- Global Emerging Infections Surveillance - DoD - A Pan-Regional Vector Biosurveillance Network to Detect, Characterize, and Predict Endemic and Emergent Zoonosis in East and Central Africa. This proposal aims to collect and test arthropods from across East Africa for infectious agents, to contribute and guide USAFRICOM policies and best prepare and protect the deployed warfighter and African host country civilians from the threat of emerging vector-borne diseases.

- Global Discovery Grant - George Mason University - Vector-borne disease surveillance in Kenya. Funded to take 20 undergraduate students to conduct research training for two weeks at Mpala Research Center, Kenya, working alongside the Smithsonian Institution, for summer 2018 and 2019.