



## Dean's Monthly Global Health Night with Shirley Luckhart, PhD

Thursday, March 3<sup>rd</sup> at 6:30 p.m.

Education Building 3202

4610 X Street, Sacramento

### Global malaria elimination and eradication – a perspective on the science and challenges behind these efforts

**This interactive and informal session with Dr. Luckhart will feature a discussion about the current global impact and status of control measures for malaria. More than 60% of the world's population is at risk for this mosquito-borne disease and, despite aggressive measures for control, incidence is increasing in some hyperendemic foci. Further, the issue of drug resistance is compounded by multi-drug resistant parasites and mosquito control is limited by insecticide resistance, with few new affordable options. Importantly, however, major international efforts are underway to eliminate malaria region-by-region, with the ultimate goal of worldwide malaria eradication on the global agenda. With these issues, malaria eradication is truly a grand challenge of our time.**

#### About the Speaker

My work for the past 20+ years has focused on malaria. In particular, we have studied malaria parasite development and transmission in laboratory models and transmission of human malaria parasites in the lab and under field conditions in endemic countries. Although the majority of my published work has focused on transmission biology in the mosquito host, we have significantly expanded our work to include pathogenesis of malaria in a variety of model systems. My lab is currently recognized internationally for expertise in the biology of the bloodfeeding interface – that is, how factors in mammalian host blood (drugs, cytokines, parasite factors) influence parasite development and transmission to the mosquito host. Current projects include the study and modeling of cross-species signaling dynamics between mosquitoes and mammals at the bloodfeeding interface, molecular biology of cell signaling pathways that regulate parasite development in the mosquito host, mitochondrial bioenergetics control of tissue homeostasis and immunity in the mosquito host, development of dual anti-malarial therapeutics with transmission blocking activity, pathogenesis of malaria-Salmonella co-infection using both mouse and non-human primate models, and the influence of human HIV co-infection on malaria parasite transmission in Kenya.

The Office of the Dean of the School of Medicine will provide a light dinner.

**RSVP to Angela Carrasco at [avcarrasco@ucdavis.edu](mailto:avcarrasco@ucdavis.edu)**

Global Health Night is a monthly occurrence, and we welcome your attendance! Meetings are held the first **Thursday** of every month from 6:30-7:30 pm in the Education Building, Room 3202.

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**Next Meeting:**  
April 7<sup>th</sup>, 2016