



Pacific Center for
Emerging Infectious Diseases
Research



UNIVERSITY
of HAWAII
MĀNOA

Department of Tropical Medicine, Medical Microbiology & Pharmacology

JOHN A BURNS SCHOOL OF MEDICINE, UNIVERSITY OF HAWAII AT MANOA

Environmental, Host, and Nontuberculous Mycobacterial Factors that Interact to Cause Lung Disease in Hawai'i

Nontuberculous mycobacterial lung disease (NTM-LD) is of growing concern throughout the world because the number of cases has dramatically increased in recent decades and the disease is recalcitrant to current treatments. While generally regarded as a non-communicable disease, the primary barriers to controlling and reducing NTM-LD cases include inadequate knowledge of the environmental niches of specific NTM species, point sources of infections, and a clear understanding of the host and organism drivers behind disease emergence. Presently, Hawai'i shows the highest prevalence of NTM-LD in the United States. Our published work indicates that NTM are widely distributed in biofilm-water interfaces and soil of Hawai'i households; furthermore, the species identified in the environment are found clinically. We hypothesize that patients acquire NTM infections from their households and that specific environmental, climatological, animal reservoirs, host genetic anomalies and behaviors, and particular genetic subtypes facilitate this acquisition, driving the high prevalence of NTM-LD. My research program addresses the central question of how do environmental influences, host factors, and the NTM organisms themselves conspire to facilitate emergence of NTM-LD. Our work has the strong likelihood of helping microbiologist, pulmonologists, and public health officials guide management decisions and implement interventions.

Jennifer Honda, Ph.D.

Instructor

*Center for Genes, Environment and Health
National Jewish Health
Denver, Colorado*

Wednesday, October 4, 2017 at 12:00 noon
John A. Burns School of Medicine, Kaka'ako Campus
Medical Education Building Auditorium (Room 315)
For further information, contact (808) 692-1654

This seminar is supported by grant P30GM114737 (COBRE) from the National Institutes of Health.



Popolo



Kukui



Awa



Lehua