Wright Center KL2 Visiting Scholar Seminar Series

"Differences in the Cervicovaginal Microbiomes of Women Who Naturally Control HIV Progression"

Tuesday, August 25th 12:00 -1:00pm

Key Note Speaker Katherine G. Michel, PhD/MPH





Kate Michel, MPH PhD, is an Assistant Professor in the School of Medicine at Georgetown University. Her research focuses on mucosal microbiomes and communication with the immune system in the context of elite control of HIV and cervical cancer. She also leads a geospatial analysis of factors affecting pre-term and low birth weight births in Washington, DC. Her previous work has included characterizing the cervicovaginal immune and epithelial response to hormonal contraception use. She received her PhD in Immunology from the University of Alabama at Birmingham and her MPH in Global Epidemiology from Emory University.



ABSTRACT

Much research has focused on understanding the etiology of how a small percentage of HIV-positive people naturally control HIV viral levels without using antiretroviral medications. HIV-positive controller status does not seem to associate with demographic, social, or behavioral factors, nor does it develop through infection with replication-incompetent HIV. Data suggest HIV-positive controllers have unique immune phenotypes and gut microbiome compositions, however little research has focused on the potential role of other mucosal microbiomes. Our preliminary data suggest altered cervicovaginal microbiomes in women who naturally control HIV, particularly elevated populations and increased genetic diversity of key Lactobacillus sub-species.

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