

# Medical Microbiology and Immunology

## MMI 291 Seminar Series

### Emerging Challenges in Microbiology and Immunology

#### Current Theme: Interdisciplinary Research



## James Whitney, Ph.D.

*Assistant Professor*

*Ragon Institute of MGH, MIT, and Harvard,  
Center for Virology and Vaccine Research*

Beth Israel Deaconess Medical Center  
Harvard Medical School

## “Therapeutic development for HIV-1 and emerging diseases”

Friday, October 26, 2018

Genome and Biomedical Sciences Facility, Auditorium Room 1005

12:10 PM – 1:00 PM

**Research work:** His research interest are viral dynamics of HIV-1 and emerging diseases. His laboratory focuses on viral dynamics, the HIV-1/SIV viral reservoir and the development of novel HIV-1 eradication strategies. In collaboration with industry partners, his group has developed a novel non-human primate model to study viral dynamics and the nature of the SIV reservoir under potent anti-retroviral therapy. In parallel, they are also evaluating a number of pre-clinical therapeutic modalities to reduce the reservoir burden in vivo.

### Publication references:

Whitney JB, Hill AL, Sanisetty S, Penaloza-MacMaster P, Liu J, Shetty M, Parenteau L, Cabral C, Shields J, Blackmore S, Smith JY, Brinkman AL, Peter LE, Mathew SI, Smith KM, Borducchi EN, Rosenbloom D, Lewis MG, Hattersley J, Li B, Hesselgesser J, Geleziunas R, Robb ML, Kim JH, Michael NL, and Barouch DH\*. Rapid Establishment of the Viral Reservoir Prior to Systemic Viremia Following Mucosal SIV Infection of Rhesus Monkeys. *Nature*. 2014. PMID 25042999.

Osuna CE, Lim SY, Deleage C, Griffin BD, Stein D, Schroeder L, Omage R, Best K, Ma Luo, Hraber PT, Andersen-Elyard H, Ojeda EFC, Huang S, Vanlandingham DL, Stephen Higgs S, Perelson AS, Estes JD, Safronetz D, Lewis MG and Whitney JB\*. Zika viral dynamics and shedding in rhesus and cynomolgus macaques. *Nature Medicine*. 2016. PMID: 27694931