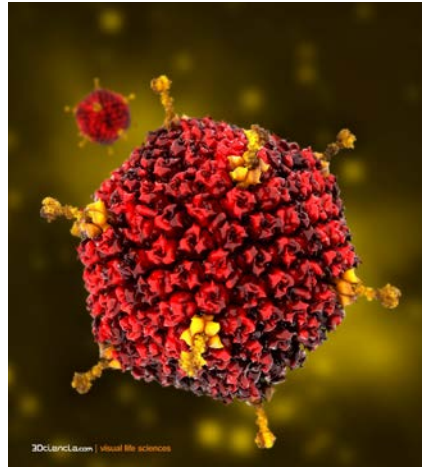




Dynamic Interactions on Virus & Host Genomes during Virus Infection



Viruses create conditions conducive to their own replication by shaping the cellular environment. A genomic conflict ensues as virus replication presents the host cell with large amounts of exogenous genetic material. The host attempts to limit viral infection and protect its genome, while the virus deploys tactics to eliminate, evade or exploit aspects of the cellular defense. We have been studying how viruses hijack and mimic cellular processes on both viral and host genomes during infection. Viral DNA genomes replicating in the cellular nucleus encounter a myriad of host factors that facilitate or hinder viral replication. Viral proteins expressed early during infection modulate host factors interacting with viral genomes, recruiting proteins to promote viral replication, and limiting access to antiviral repressors. To identify cellular processes manipulated during viral replication, we have used proteomics to define proteomes associated with both viral and host genomes during infection. These studies highlight how viral proteins can mimic cellular factors to hijack or inactivate signaling pathways, and overcome intrinsic cellular defenses during infection.

Dr. Matthew Weitzman

Associate Professor of Microbiology, Associate Professor of Pathology and Laboratory Medicine

University of Pennsylvania

Host: Dr. Lori Frappier

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Place: Room 103, Fitzgerald Building,
150 College Street