Chronic viral infections represent a unique challenge to their host. Persistently replicating viruses out-compete or subvert the initial anti-viral response, allowing the establishment of chronic infections that result in continuous stimulation of both the innate and adaptive immune compartments. This causes a profound reprogramming of the host immune system, including attenuation and persistence of type I interferons, progressive loss of CD8+ T cell functions (or exhaustion), and specialization of CD4+ T cells to promote antibody-mediated immunity and immune regulation. Epigenetic, transcriptional, post-transcriptional and metabolic changes underlie this adaptation or re-calibration of immune cells to the emerging new environment in order to strike an often-imperfect balance between the host and the infectious pathogen. I will talk about a particular signaling pathway that orchestrates CD4+ T cell responses and is essential for pathogen control during chronic viral infections.

If you need a disability-related accommodation or wheelchair access, please contact Lindasue Garner in the Department of Biology at 278-2001 or e-mail lgarner@csufresno.edu (at least one week prior to event).