



NIDDK P30 Center for Molecular Studies in Digestive and Liver Diseases Research Seminar



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Human Inflammasome Responses to Salmonella Typhimurium in Myeloid and Intestinal Epithelial Cells"

Thursday, October 27, 2022
12:00 – 1:00 PM EST
901 Biomedical Research Building

Research in the Shin lab examines immune sensing and control of bacterial pathogens that evade cell-intrinsic innate host defenses. We are particularly interested in inflammasomes, which are multiprotein complexes that sense intracellular microbial products and activate caspases, which drive inflammation by promoting release of cytokines and alarmins, and an inflammatory cell death termed pyroptosis. Inflammasomes defend against pathogens, but dysregulated activation underlies pathologies ranging from metabolic disorders to sepsis, and inflammasome gene polymorphisms are linked to autoinflammatory disorders. The NAIP family of sensors control an inflammasome pathway that detects cytosolic flagellin and certain virulence-associated bacterial secretion proteins. We discovered that in contrast to mice, in which multiple distinct NAIP sensors each detect a specific bacterial ligand, there is a single human NAIP that promiscuously recognizes multiple ligands (Reyes Ruiz et al., PNAS 2017).

The meeting will start promptly at 12:00 pm. Please be on time.