



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



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"The Biology of the Parasite Cryptosporidium, a Leading Cause Diarrheal Disease in Children"

Thursday, February 23, 2023

12:00 – 1:00 PM EST

901 Biomedical Research Building

We study the cell and molecular biology of parasites and how they interact with their mammalian host. In recent years we have focused on the apicomplexan *Cryptosporidium*, a distant cousin to the parasite that cause malaria. *Cryptosporidium* is an important pathogen for which neither prophylaxis nor effective treatment are available. *Cryptosporidium* was first recognized in the 1980s as an AIDS-defining opportunistic infection, however, immunocompetent individuals are susceptible, and today *Cryptosporidium* accounts for 50% of all U.S. waterborne disease outbreaks. Most recently, *Cryptosporidium* was identified as a leading cause of diarrheal disease and death in infants. Beyond acute disease, asymptomatic cryptosporidiosis causes stunting and environmental enteropathy with lasting impact on the development and health of children. Malnutrition and cryptosporidiosis are intimately linked. *Cryptosporidium* has long been difficult to study, but a series of recent advances has made the organism and the disease tractable. We developed genetic manipulation of the parasite and mouse infection models which has opened this important pathogen to sophisticated mechanistic studies.