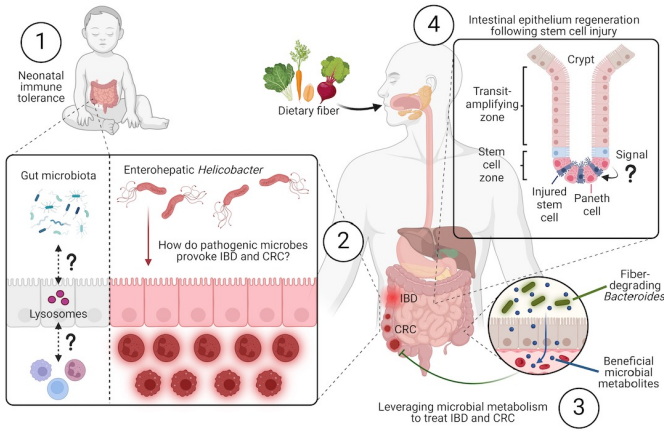
Wenyan Mei

Assistant Professor

Department of Comparative Biosciences
Affiliate Research Page
Email: wmei@illinois.edu

Created: April 2024

Dr. Mei's long-term goal is to understand how reciprocal interactions between the host and gut microbiota impact host health and how we use beneficial gut microbes to prevent and treat diseases.



Research Interests

- How does the neonatal intestine create immune tolerance to gut microbes?
- How do pathogenic microbes provoke IBD and colorectal cancer?
- The potential of prebiotics and probiotics in treating IBD and colorectal cancer (CRC)
- How does intestinal epithelium regenerate following injury

Current Projects

- Lysosome function in inducing neonatal intestinal immune tolerance
- The proinflammatory and carcinogenic role of enterohepatic *Helicobacter*
- The anti-inflammatory effect of fiber-degrading *Bacteroides*
- Paneth cells in promoting intestinal epithelial repair following injury

Keywords

Neonatal intestine, immune tolerance, bioactive metabolites, proinflammatory microbes, inflammatory bowel diseases, colorectal cancer, intestinal epithelial regeneration

Interest Areas for Collaboration/Future Work

Dr. Mei is interested in working with super-resolution imaging experts to discover the role of cellular organelles in inducing immune tolerance and how microbes and metabolites affect the tumor microenvironment. Dr. Mei is also interested in working with data scientists to analyze the effect of fiber-degrading *Bacteroides* on host gene expression and metabolomics.

Personalized Nutrition Initiative

University of Illinois Urbana-Champaign
Carl R. Woese Institute of Genomic Biology
1206 West Gregory Drive | Office 3113, MC 195
Urbana, IL 61801
personalizednutrition@illinois.edu