



Channing Microbiome Seminar

May 31 (Friday), 2024, 9AM (ET)

MCP 5th-floor large conference room & Zoom:

<https://us02web.zoom.us/j/81070959105?pwd=RFJNd3dSZmR6dXJZNjJiYVVVzQ3NEQT09>

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Human gut symbionts secrete a ubiquitin homologue for interbacterial competition

Efficient interbacterial competitions and diverse defensive strategies employed by various bacteria play a crucial role in acquiring a hold within a dense microbial community. The human gut symbiont *Bacteroides fragilis* secretes a ubiquitin homologue (BfUbb) with unknown antibacterial mechanisms. In this presentation, we provide a comprehensive elucidation of the unprecedented mechanisms of BfUbb for interbacterial competition and explore its potential applications.

Bio: Dr. Gao received his B.S. in 2007 from the School of Life Science at Shandong University. He went on to pursue graduate studies at Tsinghua University, where he focused on the molecular mechanism of membrane protein transport substrate in the acid-resistant system of intestinal pathogenic microorganisms, working under the guidance of Prof. Yigong Shi. To further his research on the interaction between intestinal pathogens and their hosts, Dr. Gao pursued postdoctoral studies with Prof. Jorge Galan at Yale University from 2012 to 2017. During this time, he focused on the scientific issue of "pathogenic microbiota pathogenesis," using Salmonella as research subjects. Since July 2017, Prof. Gao has been conducting research at the State Key Laboratory of Microbial Technology in Shandong University, focusing on the molecular mechanisms of interactions between gut bacteria (Bacteroides and Salmonella) and their hosts, with the goal of discovering novel strategies for regulating intestinal homeostasis based on his discoveries.

Hosted by Yang-Yu Liu