



Channing Microbiome Seminar

March 16 (Friday), 2018, 11am @ 5th-floor conference room



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Colonic vascular barrier function in *C. difficile* infection

Clostridium difficile infection (CDI) is mediated by two major exotoxins, toxin A (TcdA) and toxin B (TcdB), which damage the colonic epithelial barrier and induce inflammatory responses. The function of colonic vascular barrier during CDI has not been studied. Using combined approaches of experimental animal models and human clinical CDI studies, our findings indicate critical roles for toxin-induced VEGF-A and colonic vascular permeability in CDI pathogenesis. It may also implicate the pathophysiological significance of gut vascular barrier in response to virulence factors of enteric pathogens. As an alternative to pathogen-targeted therapy, this study may enable new host-directed therapeutic approach for severe, refractory CDI.

BIO: Dr. Xinhua Chen received his Bachelor of Science degree from Peking University, China, and PhD in Biochemistry from the University of Southern California Keck School of Medicine. He received his postdoctoral training from Dr. Ciaran Kelly in both BIDMC and MGH studying probiotic mechanisms. Dr. Chen is currently an Assistant Professor of Medicine at BIDMC in the Division of Gastroenterology. His research focuses on the pathogenesis of *Clostridium difficile* infection (CDI). His long term goal is to understand the pathogenesis of CDI and develop non-antibiotic alternative therapies against this clinically important disease.

Hosted by Yang-Yu Liu