## **Eugene Chang**

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Session 1B: Microbiome and Intestinal Failure and Transplantation: B: Modifying the Intestinal Microbiome in Intestinal Failure; July 1, 2023; 8:50am-9:10am



As a physician-scientist, my research focuses on studies of host-microbe interactions and disease mechanisms of the gut in states of health and disease (primarily IBD and metabolic disorders). To study the mechanisms underlying these processes, my lab employs in vitro, ex vivo and in vivo (experimental and clinical) approaches to define specific mechanisms of action relevant to the intestinal epithelial, immune and metabolic homeostasis. I have expertise in intestinal epithelial biology/pathobiology, cultivation-dependent and cultivation-independent approaches to study the gut microbiota, and in mucosal immunology. I was an active participant in the NIH Human Microbiome Project and established many of the microbiome core facilities that are being used by investigators in the Biological Science Division (BSD) at the University of Chicago. The microbiome core provides multiple cuttingedge technologies for the study of human and mammalian microbiomes, including new generation DNA sequencing, bioinformatic analysis of 16S rRNA gene-based profiles and metagenomes, gnotobiotic mouse technologies, and anaerobic/aerobic cultivation facilities. These studies have been supported through several NIH grants and involve team science collaborations with colleagues from multi-disciplinary backgrounds. Through these interactions, I have gained administrative and leadership experience, serving as Director for two decades and now as the Co-Director of the P30 Digestive Disease Research Core Center (DDRCC), member of the National Commission on Digestive Diseases, the NIDDK Council, Director of the IBD Research Laboratories, past-President of the Gastroenterology Research Group, Chairman of the AGA council, several terms on the governing board of the American Gastroenterological Association, the NIDDK advisory council, and Director of the University of Chicago Microbiome Medicine Program. I have an extensive record of successful mentorship over 4 decades as the PI and program director of a NIH training grant (T32) in digestive health and diseases, developer of the Academic Skills Workshop that is now part of the educational portfolio of the American Gastroenterological Association, life-time Master of the Academy of Distinguished Medical Educators at the University of Chicago, and recipient of numerous mentorship and teaching awards.







