The Chu laboratory at UC San Diego School of Medicine studies the complex interactions between the trillions of diverse microbes and the host in the mammalian gastrointestinal tract. We are focused on the fundamental role of commensal microbiota in the education, induction, and maintenance of the host immune system during health and disease. Our research is centered at the interface of microbiome and immunology, with the goal of mechanistically understanding the role of the microbiome in preventing and treating immune-mediated diseases such as inflammatory bowel disease (IBD).

We are seeking highly motivated and creative individuals with proven experimental expertise and a strong interest in fundamental and translational aspects of host immunity and the gut microbiome. Specifically, our lab is currently recruiting post-doctoral fellows with a demonstrated background in mucosal immunology, microbiology, and animal models of disease. We are seeking enthusiastic and hard working individuals who thrive in a dynamic, collaborative, multi-disciplinary research environment.

Our laboratory is highly committed to the career development of its trainees. Please visit our website for more details: chulab.ucsd.edu or contact Hiutung Chu at hiuchu@ucsd.edu

I. Mucosal Immunology & Animal models of IBD
• Experience in studies in germ-free & gnotobiotic mice.
• Experience in studies in mouse models of IBD & infectious diseases.
• Cultivation of human and mouse primary cells & cell lines, microbial communities and immune populations.
• Mucosal and systemic tissue collection & cell isolation, and cellular assays to assess mucosal and cellular immune responses.
• Perform and analyze data using immunological techniques including flow cytometry, ELISA, cell imaging, and animal models.
• Training in mucosal immunology, microbiology, molecular biology, and/or cell biology.

II. Microbiome/Microbial Ecology
• Experience in a broad array of standard and specialized microbiology techniques including isolation and cultivation of aerobic and anaerobic microbes, development of new media formulations for cultivation of specific species from heterogeneous mixtures of microorganisms, development and/or application of trait-based screens.
• Knowledge in microbiome and metabolomic analysis is desired.
• A background in microbial ecology (especially host-associated microbiome) with experience in high throughput sequencing and statistical analysis of large data sets.
• Training in microbiology/microbial ecology, immunology, molecular biology, and/or cell biology.

Contact hiuchu@ucsd.edu or visit chulab.ucsd.edu