



Christian Jobin, PhD

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Dr. Jobin is interested in bacteria/host interaction and ensuing innate/immunological responses during health and diseases. The intestine poses an interesting conundrum; it must peacefully cohabit with a sea of commensal bacteria (~100 trillion) and a high load of bacterial products, but swiftly respond to the presence of pathogenic microorganisms that threaten its integrity. A major clinical consequence of deregulated bacteria/host interaction in the intestine is the development of inflammatory bowel diseases (IBD) and colorectal cancer. Using mice and zebrafish housed in germ-free and gnotobiotic conditions, microbiome techniques (next-generation sequencing, microbial gene mutations, microbial RNA-sequence, etc), Dr. Jobin studies the differential contribution of bacteria in protecting or exacerbating development of colitis and colorectal cancer. Dr. Jobin has contributed to the understanding of the cellular and molecular mechanism regulating host response to bacterial colonization, and has published numerous papers on innate signaling events taking place in the intestine and how these impact intestinal homeostasis.