

Health Versus Disease: The Facts in the Case of the Microbiota

Wendy Garrett

Departments of Immunology and Infectious Diseases and of Molecular Metabolism, Harvard Chan School of Public Health, Boston, MA, USA

Colorectal cancer has largely been considered a disease of genetic and environmental factors, however, increasing evidence has demonstrated a role for the gut microbiota. The microbiota are the bacteria, archaea, viruses, fungi, and protists that colonize various human body sites including the gut and even colon tumors. The gut microbiota and its members can influence tumor growth and spread, shape anti-tumor immunity, and affect therapeutic response. I will discuss both human data from meta'omics analyses and data from mechanistic studies in pre-clinical models that support that specific bacteria can act as potentiators or restraints of colonic tumorigenesis.