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## Understanding the Microbiome: Emerging Biomarkers for Exploiting the Microbiota for Personalized Medicine against Cancer

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### Abstract

The human body is a home to more than 1 trillion microbes with a diverse variety of commensal microbes that play a crucial role towards the health of the individual. These microbes occupy different habitats such as gut, skin, vagina, oral etc. Not only the types and abundance of microbes are different in different organs, but also these may differ in different individuals. The genome of these microbiota and their ecosystem constitute to form a microbiome. Factors such as diet, environment, host genetics etc. may be the reason behind the wide microbial diversity. A number of studies performed on human microbiome have revealed that microbiota present in healthy and diseased individuals are distinct. Altered microbiome is many a times the reason behind the overexpression of genes which may cause complex diseases including cancer. Manipulation of the human microbiome can be done by microbial supplements such as

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