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Functional Medicine

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Title

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GUT AND MOUTH MICROBIOTA FOR PERSONALIZED HEALTHCARE

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Gut Microbiota and Salivary Diagnostics: The Mouth Is Salivating to Tell Us Something.

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Abstract

The microbiome of the human body represents a symbiosis of microbial networks spanning multiple organ systems. Bacteria predominantly represent the diversity of human microbiota, but not to be forgotten are fungi, viruses, and protists. Mounting evidence points to the fact that the "microbial signature" is host-specific and relatively stable over time. As our understanding of the human microbiome and its relationship to the health of the host increases, it is becoming clear that many and perhaps most chronic conditions have a microbial involvement. The oral and gastrointestinal tract microbiome constitutes the bulk of the overall human microbial load, and thus presents unique opportunities for advancing human health prognosis, diagnosis, and therapy development. This review is an attempt to catalog a broad diversity of recent evidence and focus it toward opportunities for prevention and treatment of debilitating illnesses.

KEYWORDS: biofilm; dental; medicinal food; microbiota; oral; salivary

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"Of the different ecosystems of flora that inhabit the human body, the gut microbiota system is emerging as the preeminent "microbial organ" of study, and there is great expectation that by better understanding the complexity of the role of microbiota, our microbiome will become an indispensable and integral part of our personalized healthcare in preventing and/or treating diseases more effectively and in a more precise and targeted clinical approach."

"Indeed, gaining a better understanding of the gut microbiota system may help to enable a revolution in precision medicine across a wide range of diagnostic, preventive, and therapeutic approaches."

"Consequently, it should not be surprising that gut dysbiosis can profoundly affect our wellbeing, lead to the manifestation of neuropsychiatric symptoms and conditions, and underlie a multitude of immune-related disorders (gut-brain-immune axis). Gut dysbiosis may also exacerbate the progression of a number of common and often chronic diseases. Allergies, atherosclerosis, colorectal cancer, diabetes, inflammatory bowel disease, neurological conditions, and obesity are some examples."