

“Microbiome”, the Game Changer in Medicine

What is “Microbiome”?

Microbiome is the aggregate of all microbes (including bacteria, fungi, viruses, etc.) that cohabit the human body. Specific microbial community reside within the areas of body that interact with the outside world, including the digestive organ, skin, mouth, nose, respiratory organ, and genital organ. The digestive organ in particular is home to approximately 100 trillion bacteria of 1000 different species (microbiota), which is the largest number among the other areas.

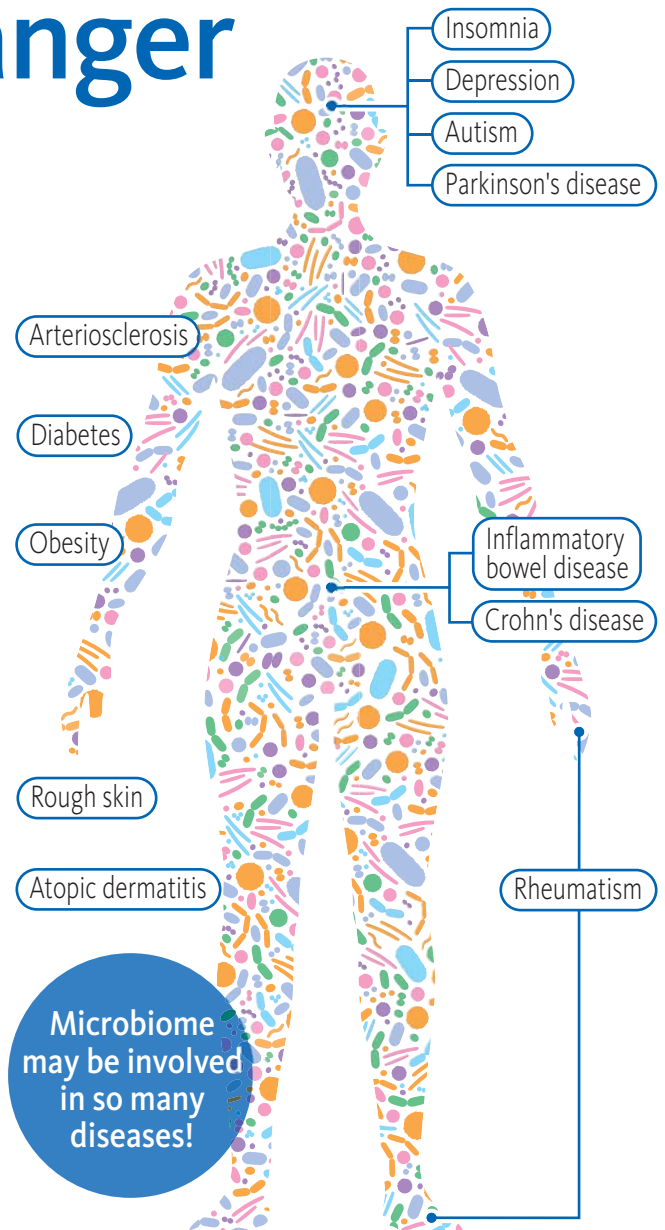
Recent researches have revealed that human microbiomes play a significant role in health and various diseases.

Diseases May be Treated and Prevented

Apart from playing a significant role in development of diseases, recent researches in microbiome have also led to establishment of treatments such as Fecal Microbiota Transplant (FMT), which aims to restore the balance of gut flora to treat conditions including inflammatory bowel diseases. With the further development in microbiome research, it is believed that diseases could even be prevented.

A Paradigm Shift in the Field of Medicine?

The advent of next-generation sequencers has led to great advancement in metagenomic analysis technology in microbiome as well as its widespread use. This is expected to further accelerate technological development in the field of medicine and healthcare, expanding the use of microbiome to diagnosis, treatment, and prevention of diseases. As such development could further contribute to reduction in healthcare costs by promoting a healthier and longer life, microbiome is drawing increased attention as the potential game changer.



The 43rd Sysmex Seminar will be held on Saturday, June 5th 2021 with the theme
"The Amazing Microbiomes: Microbes in Healthcare and Medicine"

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