



## Disease prevention ; Ayurveda concept in Clinical Microbiology

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### Abstract:

The present pandemic Covid-19 has proven that “Prevention is better than cure”, the main paradigm of 5000 year-old Indian traditional medicinal system, “Ayurveda” which was designed to promote good health and longevity rather than to fight disease. The prophecy of Ayurveda that all diseases originate from stomach is proving right now. Later a similar statement by Hippocrates (460–370 B.C.) “All diseases begin in the gut” has opened path to many novel researches these days. Human microbiota includes microbes like archaeobacteria, bacteria, fungi and viruses found all over different parts of human body. Majority of the microbial genome, which together shares more than 150 times of human genome, are being found in the human enteric habitat. The majority of metabolic diseases are caused by disparity between the microbial species inhabiting inside the biome. The most common human pathogen *Candida albicans* generally stays in normal state in human biome, however adverse epigenetics makes it pathogenic. In our study we targeted on the combination of some transcriptional factors which work in a chain to induce hyphal growth in *C. albicans* which brews virulence. We have found that some naturally occurring polyphenols can bind effectively with these transitional factors and can thus inhibit the serious fungal infections and damages caused by them. Along with playing crucial roles in regulating and modulating various metabolic reactions and life processes, dysbiosis of gut microbiota also affects the permeability of gut and blood-brain barrier especially in aged population, which increases the chance of age related neurological disorders like Alzheimer’s and Parkinson’s diseases. Our study has shown that intestinal microbiota interact with the autonomic and central nervous system via diverse pathways. In conclusion many diseases can be prevented by taking



care of our gut microbiota through appropriate herbal food intake.

### Biography:

Krishna Misra was a Honorary professor, Applied Sciences, Indian Institute of Information Technology, Allahabad, India.

### Recent Publications:

1. Curcumin inhibits formation of amyloid  $\beta$  oligomers and fibrils, binds plaques, and reduces amyloid in vivo, *Journal of Biological Chemistry* 280 (7), 5892-5901
2. Biological activities of curcumin and its analogues (Congeners) made by man and Mother Nature, *Biochemical pharmacology* 76 (11), 1590-1611
3. Immunomodulatory and therapeutic activity of curcumin
4. *International immunopharmacology* 11 (3), 331-341

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