



Postbiotics and prebiotic

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Abstract:

Food is a necessity to mankind for existence and growth. In the Human gastrointestinal tract reside microbes which constitute the microflora and contains good bacteria that have therapeutic benefits which are termed as Probiotics. The use of probiotics, prebiotics alone and in combinations “synbiotics” improve the gut homeostasis. Postbiotics consist of metabolites and cell-wall components, secreted by live beneficial bacteria or released from bacterial lysis. These byproducts demonstrate beneficial action and function activities in the host and can manipulate the microbial flora. Postbiotics possess many functions and actions. They may induce anti-inflammatory, immunomodulatory, anti-obesogenic, anti-hypertensive, hypocholesterolemia, anti-proliferative, and antioxidant effects with many positive effects on the human health. Postbiotics may contribute to the improvement of host health due to their physiological effects. Postbiotics may contribute to the understanding of the signaling pathway modulation in inflammation and infection. There are different forms of postbiotics include peptidoglycans; exopolysaccharides; organic acids or short chain fatty acids, peptide molecules; and bacteriocins. They favor absorption of minerals, improve metabolism different organs and tissues in the human host with positive biological responses. The net results of certain probiotic interaction with prebiotics may be a good alternative to probiotics and away from their disadvantages. Postbiotics are supposed to be more stable than the probiotics allowing better application in a wide variety of functional food production. It is an alternative with high therapeutic value over probiotics and prebiotics. Postbiotics are defined as “any factor resulting from the metabolic activity of a probiotic or any released molecule capable of conferring beneficial effects to the host in a direct indirect way” (Tsilingiri et al., 2013). (Sharma and Shukla, 2016).



Biography:

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Recent Publications:

1. Bacteria-derived factors; cell lysates; functional foods; health benefits, postbiotic, prebiotic, Malashree, L., Vishwanath Angadi, K. Shivalkar Yadav and Prabha, V. 2019.
2. “Postbiotics” - One Step Ahead of Probiotics. Int.J.Curr.Microbiol.App.Sci. 8(01): 2049-2053. Microbiology, 57, 69-76. Sharma, M. and Shukla, G., 2016. Metabiotics: one step ahead of probiotics; an insight into mechanism involved in anticarcinogenic effect in colorectal cancer.
3. Frontier in Microbiol. 7: 1940. Chaluvadi, S., Hotchkiss, A. T., & Yam, K. L. (2016). Gut microbiota: impact of probiotics, prebiotics, synbiotics, pharmabiotics, a postbiotics on human health.
4. In R.R. Watson, & V.R. Preedy (Eds.), Probiotics, Prebiotics and Synbiotics. Bioactive Foods in Health Promotion (pp. 515-523). London: Elsevier, Chua, K. J. Kwok, W. C., Aggarwal, N., Sun, T., & Chang, M. W. (2017).