

Regionalized and Personalized Probiotics

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Abstract

Probiotic products are globally marketed and their benefits generally claimed for all kind of people of different gender, race, age, geographic location, and health status, Considering specific human needs on one side and market opportunities on the other, it is describe here five stimuli that will enhance the exploration of probiotics targeting local populations.

1. Differences in composition of the gut microflora of people from different geographical regions.
2. Specific nutritional and health requirements in different geographic regions.
3. Survivability in local food matrices
4. Different in probiotic functions
5. Technological developments

We expect that further insights in the microbiome composition of different people from different regions (characterized by having different diets and lifestyle standards) combined with a growing understanding on host-microbe interactions, in combination with local needs and entrepreneurship, will stimulate the development of specific probiotics and increase access to healthy probiotic food including traditionally fermented foods. This would in particular be beneficial for improving health of people in developing countries, who generally lack access to affordable medicine, but are often exposed to poor hygienic conditions, toxic compounds, malnutrition and chronic enteric infections.

Biography

Lee Yuan Kun obtained his Ph. D at the University of London, United Kingdom in 1979. He is interested in various research areas including gut microbiota, microalgal biotechnology, microbe-host interactions, probiotics and prebiotics, food biotechnology and microbial fermentation. Lee Yuan Kun has also been awarded for Excellent Teacher Award by the Science Faculty, Yong Loo Lin School of Medicine and University of National University of Singapore in year 2003, 2012 and 2015, respectively. Lee Yuan Kun has published over 115 papers in international refereed scientific journals, contributed to 29 chapters in books and authored 5 monographs throughout his career. He is also the inventor of 3 patents.