The growing health awareness among consumers globally is the primary growth driver for health food market which reached about 1 trillion today based on (http://www.nutraingredients.com). The human microbiome, signifies the full range of microorganisms (the microbiota) that live on and in humans. It represent a diverse collection of microorganisms that includes bacteria, fungi, protozoans, viruses and others. Bacterial population alone is estimated at as high as 200 trillion individual organisms. Most members of the human microbiota benefit humans. Some microorganisms found in the human gut, for instance, obtain nutrients from ingested food in return for assisting with the breakdown of food or preventing the colonization of the gut by harmful bacteria. Indeed, use of bacteria cells has been part of the human food since the beginning of the food chain itself. Recently we have proposed that oral feeding of live bacterial cells can be used amongst others in managing kidney diseases (1), Heart Diseases (2), Vitamin D (3), Nonalcoholic fatty liver disease (NAFLD) (4), Colon Health (5,6), Cholesterol (6), Gastrointestinal Health (8) Neurological Disorders and Obesity (9), Metabolic Syndrome, Diabetes and other important health conditions. Details of these studies and how they can be used as next generation of health food will be discussed.

Biography

Satya Prakash is a Full Professor of Biomedical Engineering, Artificial Cells and Organs, Physiology, Experimental Medicine and Surgery in the Faculty of Medicine, at McGill University, Montreal, Quebec, Canada.

Dr. Prakash research team has contributed to the advancement and development of several biomedical technologies. His area of research interest includes microbiome, probiotics, biomedicine, microencapsulation, targeted delivery of therapeutic molecules and other biomedical applications. Dr. Prakash is leading author of more than 280 research papers and several book chapters, research and other scholarly articles. His publication list includes 68 approved/pending patents and 3 edited books. Dr. Prakash is the winner of more than 30 awards including “Medali for Outstanding Contribution to the Advancement of Science”, Fraser, Monat and McPherson Award, Canadian Institute of Health Research, New Investigator Award, FRSQ Chercheure - Boursiere, Jinan China Friendship Award and other prestigious awards.

Dr Prakash is Co-founder of Micropharma, Propviva Pharma, MangoGen Pharma and his team has developed many novel probiotics including LRC, Cardioviva, Microbiome Plus that are sold globally after receiving US FDA safety and Health Canada Structure Function Health Claim and approvals from other regulatory bodies. Currently his team is developing microbiome and other biomedical technology based next generation of food and therapeutics.

satya.prakash@mcgill.ca