Title: Functional Food Products & Ingredients for Gut Health

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Proposal

The human gut microbiota plays a crucial role in protection against disease and maintenance of gut function; especially for the host health, in general. The gut can be regarded as a bioreactor with the bacterial reactions, around 10^{14} bacteria, ten times more than total cells making up the human body that are present in our intestinal tract. The health impact of dominant groups of gut bacteria has not been thoroughly studied yet, bifidobacteria and lactobacilli being the most important components.

Recently there has been a growing appreciation for these beneficial gut microbiota in human and animal health, leading to attempts to manipulate or enhance the microbiota through the use of probiotics, prebiotics and synbiotics. Due to the potential health benefits, these ingredients are increasingly being incorporated into food products, e.g. yoghurt.

Use of functional food ingredients (probiotics, prebiotics, and synbiotics) can improve intestinal health and have the potential to improve human health in specific intestinal disorders. Some of the health effects include prevention and treatment of infections and food allergies. Other benefits are antimutagenic effects, anticarcinogenic properties, improvement in lactose metabolism, reduction in serum cholesterol and immune system stimulation.

Therefore novel research is in high demand for the development of novel functional food ingredients and their influences on gastrointestinal health.

We invite authors to submit original research as well as review articles to this special issue in Journal of Nutritional Therapeutics. Potential topics include, but are not limited to:

1. Recent advances of improved techniques for analysis of the gut microbiota
2. Developing novel probiotics, prebiotics, synbiotics for gut health
3. Studies on the action mechanisms in gastrointestinal system
4. Effects on diseases, infections and allergies; preclinical and clinical studies
5. The stability - viability and safety evaluation of these functional food ingredients
6. Designing new food manufacturing biotechnologies such as micro-encapsulation
7. Application and future trends of functional food/food ingredients

Keywords: Gut Health; Microbiota; Probiotics; Prebiotics; Synbiotics; Functionality.