The knowledge related to gut microbiota has been growing and provides scientific data that gut microbiota dysbiosis is associated with health problems, such as abnormal intestinal functions, chronic metabolic diseases and disorders of immune functions. Also, the change of dietary pattern and lifestyle in modern society could have negative impacts on bacterial population in humans’ intestines. Current data about modified dietary pattern, prebiotics and probiotics showed that these can modify gut microbiota and promote healthy bacteria in the gut, resulting in preventing or alleviating those health problems.

Prebiotics are defined as diet mainly in non-digestible carbohydrate that promotes growth or activities of good bacteria including Bifidobacterium spp. and Lactobacillus spp. The examples of prebiotics are non-digestible oligosaccharides short and long chains polysaccharides, including fructooligosaccharides (FOS), inulin-type fructans, galactooligosaccharides (GOS), etc. These prebiotics can be found in natural diet, such as chicory root, onion, garlic, tomato and banana. Also, they come in the forms of functional foods as well as additives in enteral formulas (oral nutrition supplements). The significant evidences of benefits of prebiotics have been shown in many areas, including improvement of intestinal functions, bone health, immune functions, and reduction of risk of metabolic syndrome as well as colon cancer.

Therefore, learning about physiologic, mechanism and health benefits of prebiotics will increase an appropriate use of prebiotics, especially in oral nutrition supplement in internal medicine patients.

Keywords: Prebiotics, Gut microbiota, Functional food, Oral nutrition supplement