

Probiotics, postbiotics and prebiotics as functional ingredients for health

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Abstract

Probiotics, postbiotics and prebiotics are considered as functional ingredients to be used in functional food design or as main components of dietary supplements.

The consumers are interested in having health benefits from food. The European and the American consumers are aware on the effects of probiotics. The Americans are currently consuming them choosing probiotic functional foods respect beverages and supplements. The Europeans had traditional knowledge of “live bacteria or culture” and these consumers are also informed about the relations of probiotics with improvement of bacterial microbiota, support to the immune system and prevention of diseases.

Less known appear prebiotics. The International Food Information Council reported that only the 36% of people know prebiotics were healthy compared to the 62% who said the same for probiotics. A huge 35% were unaware of their effect on health.

The definition of prebiotic was updated in 2017 by the International Scientific Association for Probiotic and Prebiotic (ISAPP), giving to that compound a wider meaning considering that several substrates can be selectively used by microorganisms not only complex carbohydrates. In addition, the target of the beneficial effect is not only the gut, but whatever microbiota that can be beneficially modified.

Driven by growing awareness and the increasing use of the term “postbiotics” in research and in commercial products, in 2021 the ISAPP formally defined a postbiotic as a preparation of inanimate microorganisms and/or their components that confers a health benefit on the host. The starting material, the means of inactivation and assurance of safety are fundamental to guarantee the safety of this formulation of several kinds of components.

Knowing and understanding the functioning of the intestinal microbiota and being able to interfere on its dynamism - also using these functional ingredients - constitutes a great tool for contributing to improve human health.

Keywords: probiotics, prebiotics, postbiotics, gut health, consumer awareness.