

PRESS RELEASE

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Resilience as a valid measure of health and the implications for health benefits of specific foods and food ingredients. *On January 16th, 2018, Mary Ellen Sanders PhD, Sylvie Binda PhD, Seppo Salminen PhD and Karen Scott PhD, posted a blog on the website of the International Scientific Association of Probiotics and Prebiotics (ISAPP) in which they consider ‘resilience’ as a measure of health and look at the implications for health claims for foods.*

The blog explores the concept of ‘resilience’ in the context of human physiology, i.e. the ability to remain healthy even when exposed to a stress, or to recover from a stress faster. This is also explained in the EFSA guidance document on biological relevance of data in scientific assessments, which contends that “*Resilience represents the amount of disturbance that can be absorbed by a system before the system changes or loses its normal function, or the time taken to return to a stable state, within the normal operation range following the disturbance ...*”.

The authors consider that this concept aligns with the definition of ‘health’, and can be applied to the human gut microbiota as an ecosystem. Once established, and although fluctuations may occur, the gut microbial ecosystem provides relatively stable functionality in humans. The capacity of the gut microbiota to resist, or recover from, perturbations reflect a person’s ability to remain healthy.

To conclude, for the authors the recent recognition by EFSA that maintenance of homeostasis is a valid measure of health provides an opportunity to apply this concept to validate health benefits of specific foods and food ingredients: “[Reducing]“ homeostatic capacity ... might be detrimental, whereas increasing the capacity could be beneficial. Stability of gut microbial populations, microbial metabolism or host physiological readouts could be measured to reflect the concept of resilience.

¹ IPA Europe is the European chapter of IPA, the International Probiotics Association; it was established in Brussels in 2015. The members of IPA Europe are Companies directly engaged in the manufacture of probiotic cultures or probiotic foods, supplements, nutritionals or therapeutic products: BioGaia, Chr. Hansen, Danone, DuPont, IPA, Lallemand, Lesaffre, Probi and Yakult. The IPA Europe mission is: to gain acceptance of the term “probiotic” throughout Europe as a defined category and to create a favourable environment for probiotics in Europe. For additional information on IPA Europe’s activities see: <http://ipaeurope.org>

Since there is no definitive composition of a 'healthy human microbiota', a more reasonable target for measuring positive impacts of a probiotic on the microbiota would be reflected not in absolute levels of specific microbes but in the ability of a specific probiotic or prebiotic to bolster up the resilience of the microbiota.

The full text can be found on the IPA Europe website: www.ipaeurope.org

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