

## Probiotic food supplements at the crossroads

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Scientific evidence of probiotic benefits on human health is continuously expanding but many of the trends currently affecting the probiotics market are related to the global regulatory movement. Although hundreds of products are marketed as probiotics, many of the strains they contain haven't been evaluated sufficiently. In addition, there are still no official or generally accepted methods for the analysis of probiotic products, where quantification and strain identification are crucial. Legislation on food supplements is partially harmonized at the EU level in the frame of a regulation on nutrition and health claims made on foods. Perhaps the most difficult challenge for research on probiotic products is providing proof of efficacy in healthy individuals. In clinical trials, the efficiency of probiotic intervention has to be relied on well-documented effects measured with reliable biomarkers independent of the subjective criteria according to which a subject feels healthy. Where pathogenesis is not present or it is not completely understood, the efficacy of probiotic treatment is often evaluated according to the perceived improvement of quality of life. A wide variety of host, dietary and environmental factors that affect gastrointestinal micro biota additionally make clinical studies difficult. The significant effect of probiotic prevention or supportive treatment failed frequently due to small number of participants in the survey. As EFSA rejected all general claims about probiotics so far, food supplements are at a crossroads. Many recent probiotic studies are already focused to specific health problems instead of general well-being and it might be expected that increasing number of probiotic products will be registered as drugs.

### Biography

Irena Rogelj has completed her Ph.D. in 1990 at University of Ljubljana (Slovenia, EU). She was appointed as full professor in Dairy Science and Nutrition in 2003. She is the head of Institute of Dairy Science and Probiotics at Biotechnical Faculty, University of Ljubljana. Her main research topic are lactic acid bacteria (LAB), the use of LAB as protective starter cultures or probiotics, control of probiotic products (foods and food supplements) and the role of human milk in development of breast fed child's intestinal microbiota. She has published more than 25 papers in reputed scientific journals.

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