

Abstract

ILSI Europe Prebiotic Task Force: Investigating the Potential of Prebiotics to Rebalance and Maintain Health [†]

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Abstract: The Prebiotic Task Force of the International Life Sciences Institute (ILSI) Europe advances the science and understanding of prebiotics and their health benefits. The Task Force, comprising academic advisors and numerous industry scientists, aims to provide scientific evidence to support the development of prebiotic-containing foods and dietary supplements that can improve gut health and overall wellbeing. Last year, the Task Force published several (peer-reviewed) scientific papers: (1) a concise monograph, translated into seven languages, providing a user-friendly introduction to the abundant scientific knowledge on prebiotics, probiotics and the gut microbiota and their impact on human health; (2) a narrative review, providing an overview of the role of non-digestible carbohydrates in the human diet, their impact on the gut microbiota, and their potential as prebiotics, with a particular emphasis on structure-related activities and in vitro models; (3) a perspective review, describing state-of-the-art tools for harnessing the microbiome for precision health, such as pro- and prebiotic dietary solutions amongst others, and a corresponding future vision of healthcare; and (4) perspectives on what we know, what we need to investigate, and how to put knowledge into practice in the microbiota-gut-brain axis. Currently, the role of prebiotics in bacterial and viral infections and vaccination efficiency is being systematically reviewed. The review will give the current status for prebiotics impact on infections, both prevention or recovery, and in supporting vaccination efficacy, for academics and industry scientists in this field. The Task Force will also commence activity on highlighting the need to perform studies in healthy participants that test the potential “rescuing” effects of prebiotics under conditions where cognition may be transiently compromised. In addition, a multi-stakeholder workshop to discuss evidence for microbiome modulation and physiological pathways for improved health and reduced disease risk, that may support a roadmap for future health claim substantiation, is being initiated this year.

Keywords: prebiotic; gut microbiota; health claims; immunity; cognition; microbiome; selective; bifidobacteria; short chain fatty acids; inulin



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