

Special Issue

From Gut to Vascular Health: The Role of Probiotics, Polyphenols, and Diet in Neuroinflammation and Cardiovascular Dysfunction

Message from the Guest Editors

Evidence exists that the gut microbiota contributes to the modulation of oxidative stress and systemic inflammation; its dysfunction is related to brain and cardio metabolic disease onset and development in young patients. It has been observed that supplementation with probiotics and prebiotics has improved cognitive function, and this is linked to better intestinal and blood-brain barrier integrity and less intestinal inflammation. In humans, oligofructose-enriched inulin changed the gut microbiota in obese patients. The ketogenic diet also helps to prevent neuroinflammation and cardiometabolic dysfunctions. New data show that natural polyphenols and fiber help with gut issues and improve dyslipidemia. Nutraceutical supplementation may represent a potential strategy to counteract oxidative stress and systemic inflammation, both underlying mechanisms in brain and cardiometabolic dysfunction.

Guest Editors

Dr. Maria Serra

Laboratory of Mass Spectrometry and Proteomics, Department Experimental and Clinical Medicine, University Magna Graecia of Catanzaro, 88100 Catanzaro, Italy

Dr. Roberta Macri

Pharmacology Laboratory, Institute of Research for Food Safety and Health IRC-FSH, Department of Health Sciences, University Magna Graecia of Catanzaro, 88100 Catanzaro, Italy

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
biomedicines@mdpi.com

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Editor-in-Chief

Prof. Dr. Felipe Fregni

1. Neuromodulation Center and Center for Clinical Research Learning, Spaulding Rehabilitation Hospital and Massachusetts General Hospital, Harvard Medical School, Boston, MA 02114, USA
2. Department of Epidemiology, Harvard T.H. Chan School of Public Health, Boston, MA 02115, USA

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