

Special Issue

Tryptophan in Nutrition and Health

Message from the Guest Editor

Tryptophan is a rate-limiting essential amino acid and thus a building block of life. Tryptophan administration can increase brain serotonin synthesis and release. This, in turn, can improve mood and sleep. Tryptophan is also the precursor of melatonin, neuroactive kynurenines, and niacin. Current research on the physiology and pathophysiology of tryptophan metabolism has revealed the central role of tryptophan and its metabolites as master molecular regulators of neurotransmission and neuromodulation. Tryptophan metabolites such as melatonin and structurally related microbial agents act as potent antioxidant and bioenergetic agents. This Special Issue will examine the key tryptophan pathways and their molecular targets. The latest developments in tryptophan research are the focus of this article collection, and the studies herein will demonstrate the relevance of tryptophan and its metabolites in nutrition and health. The discovery of a broad range of bioactive compounds derived from tryptophan will enable a better understanding of the unique role of this amino acid in disease prevention and treatment.

, Editorial Board Member

Guest Editor

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