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Regulatory Effects of Curcumin

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Message from the Guest Editors

Curcumin, the main bioactive polyphenol present in the turmeric plant *Curcuma longa*, has beneficial effects for the treatment and prevention of several diseases. Recently studies indicate that curcumin and its metabolites may modulate several signal transduction and gene expression pathways by interacting with and affecting the activity of specific enzymes and proteins. Curcumin derivatives, novel pharmacological formulations, nanocarriers, and improved delivery systems have been developed that can enhance the otherwise relatively low bioavailability of curcumin and increase its bioactivity in the human body. During uptake from the diet, curcumin may also modulate the intestinal microbiome, leading to indirect regulatory effects.

In this Special Issue of Antioxidants, the molecular regulatory effects of curcumin are reviewed, and their relevance for the prevention of diseases such as cancer, inflammation, neurodegeneration, cognitive disorders, obesity, atherosclerosis, diabetes, dyslipidemia, and liver diseases such as non-alcoholic steatohepatitis (NASH) is evaluated.





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Message from the Editor-in-Chief

It has been recognized in medical sciences that in order to prevent adverse effects of "oxidative stress" a balance exists between prooxidants and antioxidants in living systems. Imbalances are found in a variety of diseases and chronic health situations. Our journal *Antioxidants* serves as an authoritative source of information on current topics of research in the area of oxidative stress and antioxidant defense systems. The future is bright for antioxidant research and since 2012, *Antioxidants* has become a key forum for researchers to bring their findings to the forefront.

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