

Special Issue

Tryptophan Metabolism in Health and Disease

Message from the Guest Editors

Immune-mediated breakdown of the essential amino acid tryptophan along the kynurenine pathway is a key concept in immunity to establish tolerance and immunosuppression in the long term. Increased oxidative stress, as it is present in disorders associated with chronic inflammation, is a trigger of the tryptophan kynurenine axis and shifts tryptophan catabolism away from other routes. In such situations, plasma antioxidant levels usually decrease. Changes in the cellular redox milieu are critical for the induction of the catabolic enzyme indoleamine 2,3-dioxygenase in immune cells. Nutritional interventions and vitamin supplementation studies have suggested that the underlying regulatory networks are complex and that microbial-derived indole derivatives that interfere and compete with endogenous kynurenine metabolites have to be considered as well. Authors are invited to contribute original articles and/or reviews on the cross-talk between tryptophan metabolism and redox sensitive pathways or redox active molecules in vitro or in vivo and also on the involvement of tryptophan metabolism or this cross-talk in disease development or progression.

Guest Editors

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About the Journal

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.

Editor-in-Chief

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