Special Issue

Redox Biology of Glyoxalases

Message from the Guest Editor

Glyoxalases, comprising glyoxalase 1 and 2, are enzymes that play a critical role in limiting intracellular accumulation of methylglyoxal (MG), a highly reactive dicarbonyl compound formed as a by-product of different metabolic pathways. There is evidence that some MG-derived AGEs are endowed with antioxidant properties. These apparently divergent functions imply that MG-derived AGEs, and consequently glyoxalases, may exert different or even opposite biological effects within cells, frequently in a context-dependent manner. In this Special Issue, I invite investigators to contribute with original research, perspectives, or review articles that describe the relationship between glyoxalases, MG-derived AGEs, and redox biology. Studies with implications for the development of safe, effective, and innovative preventive and therapeutic strategies, including nutraceutical approaches, to modulate redox-dependent regulation of glyoxalases and/or MG-derived AGEs, and, consequently, cell and tissue dysfunctions, are also welcome. We look forward to your valuable contribution.

Guest Editor

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Deadline for manuscript submissions

closed (28 February 2022)

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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.

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