

Special Issue on **Alleviation of Drugs and Chemicals Toxicity: Biomedical Value of Antioxidants**

CALL FOR PAPERS

All chemicals, including drugs, natural products, antioxidants, or even oxygen and water, can be toxic if given in high quantity and frequency. A principle was assumed by the father of toxicology, Paracelsus, who mentioned that “the dose makes the poison” and this is considered as a core assumption of traditional toxicology. Recently, many research findings challenged this traditional dogma and concluded that even small amount of some chemicals, that is, endocrine disruptors, has many adverse effects on humans’ and animals’ health at all life stages. Toxicity is not affected only by doses, but it is a complicated multifactorial process affected by many issues including genetic predisposition and developmental exposures.

Generally, oxidative damage is considered as one of the main major mechanisms of drugs and chemical toxicity leading to deterioration of cellular macromolecules including lipid, protein, and DNA. Oxidative stress plays a crucial role in the pathogenesis of many inflammatory conditions and diseases (Parkinsonism, Alzheimer’s, hypertension, atherosclerosis, diabetes, cancer, and rheumatoid arthritis) either in human or animals or as a laboratory model. On the other hand, antioxidants have a wide range of biomedical activities and could be used alone or in combination with other therapies for prevention and/or treatment of many toxicities and diseases.

Understanding the disease pathogenesis and toxicity mechanism as well as molecular target of antioxidants remains the primary focus of many researchers for better preventive and therapeutic intervention. This special issue is dedicated to integrating the previous and the current use of antioxidants against drugs and chemicals toxicity.

We cordially invite investigators to contribute their original and review articles in our special issue.

Potential topics include but are not limited to the following:

- ▶ Isolation, characterization, and pharmacological evaluation of antioxidants
- ▶ Identification of novel antioxidant active constituents and their biological evaluation
- ▶ Implication of antioxidants in disease prevention and treatment
- ▶ Antioxidants roles in chemically induced inflammatory and disease models (cancer, diabetes, rheumatoid arthritis, atherosclerosis, and neurodegenerative disorders)
- ▶ The therapeutic application of antioxidant against drugs and chemicals toxicity
- ▶ Elucidation of mechanism of phytochemicals as a natural antidote
- ▶ The molecular mechanism of herb-chemical and food-drug interaction

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/omcl/adct/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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