



Oxidative Medicine and Cellular Longevity

Special Issue on New Insights into Pharmacological Control of Oxidative Stress in Liver Injury

CALL FOR PAPERS

Reactive oxygen species (ROS) generation is an unavoidable consequence of life although it can be considered a double-edged sword. Beneficial effects of ROS occur at moderate concentrations; on the contrary, when production of ROS exceeds the capacity of cellular antioxidant defences, to remove these toxic species, oxidative damage can occur. The family of ROS includes highly reactive short-lived molecules that are derived from reduction of molecular oxygen. Several enzymes expressed in all tissues contribute to production as well as to degradation of ROS. At the same time, antioxidants, such as glutathione, arginine, taurine, selenium, zinc, vitamin E, vitamin C, and vitamin A, help to regulate the disposition of ROS. Antioxidant defence is further supported by antioxidant enzymes, for example, superoxide dismutase, catalase, thioredoxin, peroxiredoxin, and glutathione peroxidase. Overproduction of free radicals can affect redox-signalling pathways and cause oxidative damage to biomolecules such as lipids, proteins, and DNA contributing to many liver diseases such as cholestasis, ischemia/reperfusion (IR), alcoholic and nonalcoholic steatohepatitis, and drug induced liver injury (DILI) in humans.

Articles published in this issue will not only help to identify new pharmacological approaches to reduce/control oxidative damage in the liver but also stimulate the identification of innovative molecular biomarkers of oxidative stress.

The special issue will be an international forum for researchers to summarize the most recent therapeutics strategies against oxidative stress-induced liver injuries. We invite investigators to contribute by review and original papers describing recent findings in this field.

Potential topics include, but are not limited to:

- ▶ Innovative biomarkers for the assessment of antioxidant therapy
- ▶ Pharmacological regulation of oxidant enzyme expression and activity
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- ▶ Redox-modulating therapies in acute and chronic liver disease processes
- ▶ Therapeutical approach against liver mitochondrial dysfunction in aging

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/omcl/niplos/>.

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