



Oxidative Medicine and Cellular Longevity

Special Issue on

Melatonin, as an Antioxidant and a Chronobiotic, in Health and Disease

CALL FOR PAPERS

Melatonin (N-acetyl-5-methoxytryptamine) is a neurohormone produced mainly by the pineal gland. In addition to its major role as a regulator of circadian and seasonal rhythms, melatonin has numerous additional functions, including vasomotor control, regulation of adrenal function, modulation of immune system, and anti-inflammatory action, serving as an antioxidant agent, influencing energy metabolism, and providing a protective role in the mitochondria. Further, that melatonin supplementation supporting beneficial effects in different pathological conditions is gaining significance. However, our understanding of its specific role and mechanisms of action is still in infancy. Therefore, the need of advancing the knowledge regarding the role of melatonin in human health and disease is crucial to obtain clinical successes.

We invite investigators to submit their original research as well as review articles that might contribute to better understanding of the mechanisms of melatonin action in physiological and pathological conditions. We are particularly interested in articles describing the therapeutic advantages of melatonin in diseases known to involve free radicals with known free radical etiology.

Potential topics include, but are not limited to:

- ▶ Current state of knowledge on the antioxidant properties of melatonin, its metabolites, and analogs: *in vivo* and *in vitro* studies
- ▶ Protective role of melatonin against the oxidative damage to mitochondria
- ▶ Molecular mechanisms of melatonin action in the anticancer therapy
- ▶ Impact of sleep disruption and melatonin deficiency on cancer risk in night shift workers
- ▶ Effects of melatonin supplementation in humans in affected physiological and pathological conditions
- ▶ Relationships between sleep disruption, melatonin deficit, and obesity
- ▶ Role of melatonin deficiency in pathophysiology of aging and neurodegenerative disorders

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

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