



Melatonin Receptors and Reproduction

Guest Editors:

Dr. Felipe Martinez-Pastor

INDEGSAL and Molecular Biology
(Cell Biology), Universidad de
León, Leon, Spain

Dr. Cristina Soriano-Úbeda

Animal Reproduction and
Obstetrics, Department of
Veterinary Medicine, Surgery and
Anatomy, University of León,
24071 Leon, Spain

Deadline for manuscript
submissions:

closed (30 September 2022)

Message from the Guest Editors

Dear Colleagues,

Melatonin is a multifunctional molecule that influences many biological processes. Melatonin relays photoperiodic cues, coordinating many physiological functions and acting as a paracrine signal and potent antioxidant. Whereas the pineal gland produces circulating melatonin that regulates the reproductive seasonality by modulating the hypothalamic–pituitary–gonadal axis, many authors have identified local functions in the reproductive system.

The effects of melatonin, both circulatory and locally produced, have many potential functions in the reproductive tract and gamete functionality, from protective to regulatory. Melatonin also has a potent antioxidant effect, and many probed and putative receptors are present in these tissues, which could influence sperm chemotaxis, modulate its capacitation, and affect oocyte and embryo development. With so many effects, melatonin has attracted attention for its practical applications, with a great potential for contributing to artificial reproductive technologies.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. José L. Quiles

Department of Physiology,
Institute of Nutrition and Food
Technology “Jose Mataix”,
Biomedical Research Center,
University of Granada, Avda.
Conocimiento s/n, 18100 Armilla,
Granada, Spain

Message from the Editor-in-Chief

The *International Journal of Molecular Sciences (IJMS)* is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, and molecular biophysics. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), PubMed, PMC, MEDLINE, Embase, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)

Contact Us

*International Journal of Molecular
Sciences* Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/ijms
ijms@mdpi.com
X@IJMS_MDPI