

Special Issue

Melatonin in Human Health and Diseases

Message from the Guest Editor

Melatonin is a small ubiquitous and pleiotropic molecule initially mainly recognized for its nocturne production and its role in the regulation of circadian rhythms. However, a great deal of evidence has confirmed the fundamental role of melatonin and its potential as an antioxidant agent. In vertebrates, melatonin is synthesized by the pineal gland and by a large number of organs, including but not limited to the retina, gastrointestinal tract, ovary and oocytes. Every cell in plants and animals produces melatonin in their mitochondria while, in green plants, melatonin is produced in chloroplasts. Its production starts from L-tryptophan, following a well-known enzymatic pathway. Moreover, melatonin also acts through its receptors present on the cellular membrane named MT1 and MT2, which are widely distributed in eukariotic cells. Via its receptors, and as a consequence of its receptor-independent actions, melatonin is a multitasking molecule. It has many properties including cancer inhibition, immune stimulation and cardioprotective effects. Recently, it was also able to limit neurodegenerative diseases.

Guest Editor

Prof. Dr. Rita Rezzani

Anatomy and Physiopathology Division, Department of Clinical and Experimental Sciences, University of Brescia, 25123 Brescia, Italy

Deadline for manuscript submissions

closed (15 April 2020)



Cells

an Open Access Journal
by MDPI

Impact Factor 5.2
CiteScore 11.4
Indexed in PubMed



mdpi.com/si/24206

Cells
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
cells@mdpi.com

[mdpi.com/journal/
cells](https://mdpi.com/journal/cells)





Cells

an Open Access Journal
by MDPI

Impact Factor 5.2
CiteScore 11.4
Indexed in PubMed



[mdpi.com/journal/
cells](https://mdpi.com/journal/cells)



About the Journal

Message from the Editorial Board

Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. *Cells* encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

Editors-in-Chief

Dr. Alexander E. Kalyuzhny

Neuroscience, UMN Twin Cities, 6-145 Jackson Hall, 321 Church St SE,
Minneapolis, MN 55455, USA

Prof. Dr. Cord Brakebusch

Biotech Research & Innovation Centre, The University of Copenhagen,
Copenhagen, Denmark

Author Benefits

High Visibility:

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

Journal Rank:

JCR - Q2 (Cell Biology) / CiteScore - Q1 (General Biochemistry, Genetics and Molecular Biology)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.5 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the second half of 2025).