



*cells*



an Open Access Journal by MDPI

## The Role of NAD<sup>+</sup> Metabolism in Cellular Processes during Aging and Age-Associated Diseases

Guest Editors:

**Dr. Alessia Grozio**

The Buck Institute for Research  
on Aging, Novato, CA, USA

**Dr. Rosalba Perrone**

The Buck Institute for Research  
on Aging, Novato, CA, USA

**Dr. Andrea Benzi**

Department of Experimental  
Medicine, University of Genoa,  
Genoa, Italy

Deadline for manuscript  
submissions:

**closed (15 October 2023)**

### Message from the Guest Editors

Dear Colleagues,

Nicotinamide adenine dinucleotide (NAD<sup>+</sup>) is an important coenzyme for hundreds of different oxidoreductases as well as an essential cofactor for NAD<sup>+</sup>-dependent enzymes, such as sirtuins, poly(ADP-ribose) polymerases (PARPs) and NAD<sup>+</sup> glycohydrolases (CD38, CD157 and SARM1). These enzymes play a fundamental role in many pivotal cellular processes including DNA repair, regulation of gene expression, redox balance and cell metabolism and signaling. The decline in NAD<sup>+</sup> levels has been associated with several hallmarks of aging and age-related diseases. In this regard, boosting NAD<sup>+</sup> levels by enhancing its biosynthesis or inhibiting its degradation has emerged as a promising therapeutic approach to counteract the aging process and to treat age-associated diseases. This Special Issue aims at providing novel insights into the role of NAD<sup>+</sup> metabolism in the context of aging and age-associated diseases. We welcome original research and review articles.

For further reading, please, visit the [Special Issue website](#).



[mdpi.com/si/109184](https://mdpi.com/si/109184)

# Special Issue



*cells*



an Open Access Journal by MDPI

## Editors-in-Chief

### **Prof. 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

## 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.

## 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](#), [MEDLINE](#), [PMC](#), [CAPus / SciFinder](#), and [other databases](#).

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

## Contact Us

*Cells* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/cells](http://mdpi.com/journal/cells)  
[cells@mdpi.com](mailto:cells@mdpi.com)  
[X@Cells\\_MDPI](https://twitter.com/Cells_MDPI)