



an Open Access Journal by MDPI

# **Endoplasmic Reticulum Stress in Neurodegenerative Diseases**

Guest Editors:

## Prof. Dr. Dan Lindholm

Department of Biochemistry and Developmental Biology, Faculty of Medicine, University of Helsinki, FIN-00014 Helsinki, Finland

#### Prof. Dr. Mart Saarma

Institute of Biotechnology, HiLIFE, University of Helsinki, Viikinkaari 5D, 00790 Helsinki, Finland

#### Dr. Vera Kovaleva

Institute of Biotechnology, HiLIFE, University of Helsinki, Helsinki, Finland

Deadline for manuscript submissions: 15 September 2024



mdpi.com/si/182645

### **Message from the Guest Editors**

Dear Colleagues,

In this Special Issue, a collection of papers by distinguished scientists in the field is presented. ER stress will be discussed from different points of view elucidating both its pathophysiology, the signaling mechanisms involved and the possibilities to interfere with and alleviate the consequences of enhanced ER stress in the different diseases. In addition to protein homeostasis, the emerging roles of ER stress in the regulation of RNA and metabolism will also be highlighted. Together, these results underscore the importance of ER stress and its signaling pathways regulating protein homeostasis to meet various challenges that brain cells encounter during normal life, and which contribute to neurodegenerative disorders and brain ageing. An increased understanding of the mechanisms of ER stress and their relationship with other cellular signaling pathways in brain cells and in various neurodegenerative disorders is crucial for the development of better therapies for these diseases

# Keywords

- endoplasmic reticulum
- ER stress
- Parkinson's disease
- Huntington's disease
- amyotrophic lateral sclerosis
- Alzheimer's disease
- neurodegenerative disorders
  Specialsue





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, CAPlus / SciFinder, and other databases.

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

### **Contact Us**

*Cells* Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/cells cells@mdpi.com X@Cells\_MDPI