



cells



an Open Access Journal by MDPI

Unlocking the Secrets Behind Drug Resistance at the Cellular Level

Guest Editors:

Dr. Sara Ricardo

UCIBIO—Applied Molecular Biosciences Unit, Toxicologic Pathology Lab at University Institute of Health Sciences (1H-TOXRUN, IUCS-CESPU), 4585-116 Gandra, Portugal

Dr. Cristina Pinto Ribeiro Xavier

Deadline for manuscript submissions:

30 April 2026

Message from the Guest Editors

Drug resistance is becoming a growing health concern. It can be developed by simple prokaryote cells to complex eukaryote cells, such as cancer cells. The World Health Organization (WHO) has identified antimicrobial resistance as one of the three significant public health challenges of the twenty-first century. Additionally, chemoresistance associated with cancer treatments is another big challenge of this century, and it is expected to increase in the coming years.

This Special Issue will contribute to the understanding of the underlying cellular mechanisms that lead to drug resistance. This issue aims to examine the mechanisms behind antibiotic resistance. In addition, it will investigate the ways by which drug resistance is developed in cancer, generally linked with several factors such as apoptotic pathways, immune system dysfunction, epigenetic changes and the activation of detox systems such as ROS. Understanding the mechanisms behind drug resistance can trigger the development of new strategies to improve treatment efficacy in these two different disease contexts.



mdpi.com/si/199570

Special Issue



cells



an Open Access Journal by MDPI

Editors-in-Chief

Dr. Alexander E. Kalyuzhny

Dental Basic Sciences, University of Minnesota, 308 Harvard 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, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/cells
cells@mdpi.com
[X@Cells_MDPI](#)