

Special Issue

Role of DNA Repeats in Shaping Genome Structure and Gene Regulatory Networks

Message from the Guest Editors

Repetitive sequences, including transposable elements, and simple repeats constitute at least half of the mouse and human genomes. The most abundant subclasses are the short interspersed nuclear elements (SINEs; 1.4 million copies of human Alu elements or 0,6 millions of mouse B1 repeats) and the long interspersed element-1 (LINE1 or L1; 1.0 million copies in the human and mouse genomes). Once considered as junk or “parasite” DNA, it is recognized that repetitive sequences regulate chromatin organization, the 3D structure of the genome, and transcription of specific gene subsets at both transcriptional and post-transcriptional levels. Emerging evidence suggests that their activity influences fundamental cell processes, including inflammation, senescence, genome stability and DNA damage, and is implicated in cancer development and aging. Topics of interest of the Special Issue may include:

- How repetitive sequences shape genome structure and/or gene regulatory networks within their host genome;
- Individual repeat subfamilies in gene regulation;
- Repetitive sequences in the regulation of fundamental cell processes;
- Repetitive sequence in cancer and aging.

Guest Editors

Prof. Dr. Pier Giuseppe Pelicci

Department of Experimental Oncology, European Institute of Oncology, Via Adamello 16, 20139 Milan, Italy

Dr. Gaetano Ivan Dellino

Department of Oncology and Hemato-Oncology, University of Milan, Via Festa del Perdono 7, 20122 Milan, Italy

Deadline for manuscript submissions

closed (15 January 2023)



Cells

an Open Access Journal
by MDPI

Impact Factor 5.2
CiteScore 10.5
Indexed in PubMed



mdpi.com/si/102795

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 10.5
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

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

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).