

Special Issue

CRISPR Genome Editing

Message from the Guest Editor

CRISPR-mediated genome editing in mice greatly facilitated the generation of genetically modified mice and enabled the quick generation of mice with multiple genetic alterations. Moreover, as CRISPR genome editing is not restricted to mice, it significantly widened the spectrum of laboratory animals that can be used to study the effect of targeted mutations. Finally, CRISPR genome editing created novel ways to repair gene defects of human patients *ex vivo* or *in vivo*.

However, the shiny new world of CRISPR is not without its challenges. The biggest shortcomings right now are, first, the relative low efficiency of precise homology directed repair compared to the error-prone nonhomologous end joining repair; secondly, the presence of off-target mutations; and thirdly, the often insufficient effectiveness of introducing CRISPR nucleases together with targeting templates into stem cells. This Special Issue of *Cells* is therefore dedicated to reviews and original articles describing efforts to overcome the bottlenecks of this fascinating genome editing technology and to present the state-of-the-art in that field.

Guest Editor

Prof. Dr. Cord Brakebusch

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

Deadline for manuscript submissions

closed (15 May 2020)



Cells

an Open Access Journal
by MDPI

Impact Factor 5.2
CiteScore 10.5
Indexed in PubMed



mdpi.com/si/29256

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

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).