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CRISPR Genome Editing

Guest Editor:

Prof. Dr. Cord Brakebusch

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

Deadline for manuscript
submissions:

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Message from the Guest Editor

Dear Colleagues,

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.



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Special Issue



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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.

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Contact Us

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

Tel: +41 61 683 77 34
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