



*cells*



an Open Access Journal by MDPI

## Gene and Transcript Therapy for Musculoskeletal Tissue Healing

Guest Editor:

**Prof. Dr. Elizabeth R. Balmayor**

Experimental Orthopaedics and Trauma Surgery, Department of Orthopaedic, Trauma, and Reconstructive Surgery, RWTH Aachen University Hospital, D-52074 Aachen, Germany

Deadline for manuscript submissions:

**closed (15 September 2023)**

### Message from the Guest Editor

mRNA is a new class of drug that can be used to express a therapeutic protein and, in contrast to cDNA, is safer and inexpensive. Among its advantages, mRNA immediately begins to express its encoded protein in the cytoplasm. The protein is expressed for a period, after which the RNA is degraded; moreover, there is no risk of genetic impediments, which is one of the concerns with DNA. Nevertheless, the successful application of mRNA for tissue healing in regenerative medicine relies on successfully reducing the immunogenicity of this molecule while increasing its stability upon administration. Much research is being carried out to further develop RNA therapeutics for musculoskeletal tissue healing. The next challenge is to translate gene and transcript (RNA) therapeutics into clinically expedient technologies for musculoskeletal tissue healing.

The aim of this Special Issue is to provide an overview of the current advances of gene therapy for tissue healing. We will focus on the tissues of the musculoskeletal system. Novel RNA-based approaches are especially welcome.



[mdpi.com/si/163780](https://mdpi.com/si/163780)

**Special** Issue



*cells*



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](http://www.mdpi.com)

[mdpi.com/journal/cells](http://mdpi.com/journal/cells)  
[cells@mdpi.com](mailto:cells@mdpi.com)  
[X@Cells\\_MDPI](#)