



*cells*



an Open Access Journal by MDPI

## DNA Methylation in Health and Disease

Guest Editors:

**Prof. Dr. Bernard Thienpont**

Laboratory for Functional Epigenetics, Department of Human Genetics, KU Leuven Campus Gasthuisberg, Leuven, Belgium

**Dr. Giovanni Amabile**

Chief Executive Officer, Enthera, Milano, Italy

Deadline for manuscript submissions:

**closed (31 July 2019)**

### Message from the Guest Editors

Dear colleagues,

DNA methylation represents one of the most well-known and stable epigenetic modifications, with patterns of DNA methylation being faithfully copied through cell divisions. However, during most physiological and pathological processes of adaptation, active changes to the DNA methylation landscape occur, and major efforts are made to document them and understand how they can predict or underlie future responses.

Recent methodological developments for single cell analyses and the deconvolution of tissue-level DNA methylation patterns now enable us to characterize these changes at an unprecedented resolution and with unsurpassed accuracy. This Special Issue will highlight advances made in this field by summarizing the roles of DNA methylation in both health and diseases as diagnostic and prognostic biomarkers, by reviewing where they are situated in the genome and how methylation changes come about, and by describing how stable changes can mechanistically impact future cellular and organismal processes.

- DNA methylation
- biomarkers
- epigenetics
- cellular heterogeneity



[mdpi.com/si/20068](https://mdpi.com/si/20068)

**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](#)