

Special Issue

The Roles of Telomeres and Telomerase in Early Developmental Processes and Cancer Development

Message from the Guest Editor

Telomere and telomerase play important roles in replicative senescence and aging, which are closely related to cancer transformation. Telomere caps chromosome ends to keep genomic integrity from incomplete DNA replication. Telomeric heterochromatin could regulate distal gene expression via changes in genome architecture.

Telomerase extends telomeric repeats so that enzymatic activity is indispensable in the propagation of cancer cells and extensive cell divisions in early development. It is not precisely known what causes its repression in somatic cells. Reactivation telomerase or ALT (alternative lengthening of telomeres) still await extensive studies for understanding and therapeutic intervention of cancer.

For this Special Issue, we will cover the biology of the telomere in early developmental processes and cancer development. Regulation of telomere during aging will also be discussed. This Special Issue also invites studies on transcription and post-transcriptional regulation of TERT as well as post-translational regulation of telomerase activity. Mechanistic insights into telomerase reactivation and ALT will also be covered in this Special Issue.

Guest Editor

Dr. Wanil Kim

Department of Biochemistry, College of Medicine, Gyeongsang National University, Jinju 52727, Korea

Deadline for manuscript submissions

closed (31 July 2021)



Biology

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 7.4
Indexed in PubMed



mdpi.com/si/58557

Biology
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
biology@mdpi.com

[mdpi.com/journal/
biology](https://mdpi.com/journal/biology)





Biology

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 7.4
Indexed in PubMed



[mdpi.com/journal/
biology](https://mdpi.com/journal/biology)



About the Journal

Message from the Editorial Board

A major strength of biological science is the diversity of approaches that biological scientists apply to their research problems. *Biology* reflects this diversity and brings together studies employing the varied experimental and theoretical approaches that are fueling biological discovery. *Biology*, the journal, is a fully peer-reviewed publication with a rapid and economical route to open access publication and is listed on PubMed. All articles are peer-reviewed and the editorial focus is on determining that the work is scientifically sound rather than trying to predict its future impact.

Editors-in-Chief

Prof. Dr. Jukka Finne

Research Programme in Molecular and Integrative Biosciences, Faculty of Biological and Environmental Sciences, University of Helsinki, P.O. Box 56, FI-00014 Helsinki, Finland

Prof. Dr. Andrés Moya

Integrative Systems Biology Institute, University of Valencia and CSIC, 46980 Valencia, Spain

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, PubAg, CAPus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biology) / CiteScore - Q1 (General Agricultural and Biological Sciences)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.4 days after submission; acceptance to publication is undertaken in 2.5 days (median values for papers published in this journal in the first half of 2025).