Special Issue

Telomeres and Human Disease

Message from the Guest Editor

Telomeres are protective nucleoprotein structures that cap the ends of linear chromosomes to prevent degradation and fusion. In most somatic cells, telomeres become progressively shorter with each cell division due to the inherent properties of linear DNA replication. This process is attenuated in germ cells and, to a lesser extent, in stem cells by the action of the enzyme telomerase. Mutations in key telomere maintenance genes are associated with rare inherited disorders characterized by extremely short, dysfunctional telomeres and shared clinical features such bone marrow failure. A shorter mean leukocyte telomere length (LTL) is associated with the risk of common age-related conditions such as coronary artery disease and chronic obstructive pulmonary disease. The relationship between telomere length and neoplastic disease is more complex, with a shorter LTL being associated with an increased risk of some cancers and a decreased risk of others. A better understanding of the pathways underlying telomere maintenance and its role in age-related disease risk will pave the way for novel treatments and interventions that support healthy ageing.

Guest Editor

Dr. Jess Buxton

Department of Biomolecular Sciences, School of Life Sciences, Pharmacy and Chemistry, Faculty of Science, Engineering and Computing, Kingston University, London, UK

Deadline for manuscript submissions

closed (30 June 2022)

International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9
CiteScore 10
Indexed in PubMed

mdpi.com/si/68894

International Journal of Molecular Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
ijms@mdpi.com

mdpi.com/journal/ijms

International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9
CiteScore 10
Indexed in PubMed

mdpi.com/journal/ijms

MDPI

About the Journal

Message from the Editor-in-Chief

The *International Journal of Molecular Sciences* (*IJMS*) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, and molecular biophysics. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

Editor-in-Chief

Prof. Dr. José L. Quiles
Department of Physiology, Institute of Nutrition and Food Technology "Jose Mataix", Biomedical Research Center, University of Granada, Avda. Conocimiento s/n, 18100 Armilla, Granada, Spain

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, PMC, MEDLINE, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)