Special Issue

Cellular Senescence in Physiological and Pathological Processes

Message from the Guest Editors

Senescence is the permanent cell cycle arrest that occurs in response to extracellular or intracellular stress. It determines the loss of cellular functions over time. A senescent cell loses its original function and acquires new activities. Numerous studies correlate cellular senescence to aging, as it limits the proliferation of damaged cells largely contributing to the reduction in tissue functions and renewal. Senescence has also been indicated as a major cause of age-related diseases. Recent evidence has shown that pharmacological ablation of senescent cells improves longevity and promotes health span.

This Special issue welcomes original research and critical review on the role of cellular senescence in physiological and pathological processes. Topics of this Special Issue include but are not limited to regulatory pathways of senescence; senescence and stem cells; links between cellular senescence and aging; novel therapeutic treatment to remove senescent cells; and senescence and cancer.

Guest Editors

Dr. Tiziana Squillaro

Department of Molecular Medicine and Medical Biotechnology, Medical School, University of Naples Federico II, Via Pansini, 80131 Naples, Italy

Dr. Mauro Finicelli

Research Institute on Terrestrial Ecosystems (IRET), National Research Council of Italy (CNR), Via Pietro Castellino 111, 80131 Naples, Italy

Deadline for manuscript submissions

closed (31 May 2022)



International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9 CiteScore 9.0 Indexed in PubMed



mdpi.com/si/98337

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 9.0 Indexed in PubMed





Message from the Editor-in-Chief

The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) 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, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *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. Maurizio Battino

Department of Odontostomatologic and Specialized Clinical Sciences, Sez-Biochimica, Faculty of Medicine, Università Politecnica delle Marche, Via Ranieri 65, 60100 Ancona, Italy

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)

