

Special Issue

Skeletal Muscle Wasting, Regeneration, and Stem Cells

Message from the Guest Editors

Skeletal muscle wasting occurs during aging or pathological conditions, and it involves an imbalance between protein synthesis and degradation. It is the result of multifactorial processes such as chronic inflammation, increased levels of oxidative stress, mitochondrial dysfunctions, and impairment of the regenerative process. The regenerative program is severely compromised during aging or pathological conditions, with a progressive loss of muscle mass and function. This effect seems to be related to the progressive loss of stem cell populations or the lack of signals that prevent damaged tissues from carrying out an efficient regeneration program. To date, no effective countermeasure for skeletal muscle atrophy has been developed. This Special Issue calls for original articles and reviews that provide IJMS readers with the latest information on the molecular mechanisms involved in muscle wasting and regeneration and the role that stem cells play in these processes. Furthermore, particular attention will be paid to possible therapeutic strategies that aim to maintain skeletal muscle homeostasis.

Guest Editors

Dr. Bianca Maria Scicchitano

Sezione di Istologia ed Embriologia, Dipartimento di Scienze della Vita e Sanità Pubblica, Fondazione Policlinico Universitario A. Gemelli IRCCS, 00168 Roma, Italy

Dr. Gabriella Dobrowolny

Department of Anatomy, Histology, Forensic Medicine and Orthopedics, Sapienza University of Rome, 00161 Roma, Italy

Deadline for manuscript submissions

closed (31 July 2023)



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



mdpi.com/si/128456

*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](https://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



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



About the Journal

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)