

Special Issue

Effects of Exercise on Susceptibility to Environmental and Disease Stressors

Message from the Guest Editor

Exercise is often prescribed as a method to prevent or to treat cardiovascular and metabolic diseases. However, recent data suggest potential mechanisms by which exercise produces substrates (exerkines) which promote crosstalk between all organ systems to maintain health in the face of internal and external stressors. For example, the release of myokines from exercising muscles has been shown to influence the function of the brain, the liver, bone, adipose tissue, blood vessels, the pancreas, and even the skin. Exercise is known to alter gut permeability and intestinal microbiome diversity, with effects on the gut–brain axis and immune function. And the release of heat shock proteins during exercise may increase tolerance to several forms of environmental stress, improve immune function, and stabilize gut permeability. Some, or all, of the above responses influence our susceptibility to cognitive, metabolic, skeletal-muscle, and immunological diseases and tumor growth, as well as preventing cardiovascular diseases.

Guest Editor

Prof. Dr. Suzanne M. Schneider

Department of Health Exercise and Sports, College of Education,
University of New Mexico, Albuquerque, NM, USA

Deadline for manuscript submissions

closed (28 February 2025)



Life

an Open Access Journal
by MDPI

Impact Factor 3.4
CiteScore 6.0
Indexed in PubMed



mdpi.com/si/210255

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

mdpi.com/journal/

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





Life

an Open Access Journal
by MDPI

Impact Factor 3.4
CiteScore 6.0
Indexed in PubMed



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



About the Journal

Message from the Editor-in-Chief

Life (ISSN 2075-1729) is an international, peer-reviewed open access journal that publishes scientific studies related to fundamental themes in life sciences. Some papers are published individually, while others are submitted for inclusion in special issues with guest editors. You are invited to contribute a research article, essay, or a review to be considered for publication.

Editor-in-Chief

Prof. Dr. Lluís Ribas de Pouplana

Institute for Research in Biomedicine (IRB Barcelona), The Barcelona
Institute of Science and Technology, 08028 Barcelona, 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, CAPIus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biology) / CiteScore - Q1 (Paleontology)