## **Special Issue**

## Biological and Molecular Aspects of Exercise Adaptation

## Message from the Guest Editor

Regular physical activity causes a range of changes to occur in the body as it acts to re-establish a new dynamic balance, which occurs at the level of redox homeostasis and metabolic states. These adaptations demonstrate numerous health benefits; however, when training is too intense, prolonged, or not followed by adequate rest, it can have the opposite effect. Our aim in launching this Special Issue is to evaluate the molecular aspects of exercise adaptation, focusing on the role of sport type, sex, age, and other biological factors that can influence exercise adaptation. The studies included will help to elucidate the biological processes involved in exercise adaptation. A better understanding of how physical activity exerts beneficial effects will allow the identification of molecules and biological pathways that can be used to monitor the health status of athletes, as well as maximizing health benefits for the prevention and treatment of diseases. This Special Issue will be supervised by , with assistance from Dr. Rosamaria Militello (University of Florence).

## **Guest Editor**

Prof. Dr. Alessandra Modesti

Dipartimento di Scienze Biomediche Sperimentali e Cliniche, Università di Firenze, Florence, Italy

### Deadline for manuscript submissions

20 April 2026



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## Message from the Editor-in-Chief

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#### **Editor-in-Chief**

#### Prof. Dr. Maurizio Battino

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