



## Epigenetic and Transcriptional Regulation in Muscle Cells

Guest Editors:

**Dr. Iori Sakakibara**

Department of Nutritional  
Physiology, Institute of Medical  
Nutrition, Tokushima University  
Graduate School, Tokushima  
7708503, Japan

**Dr. Shinichiro Hayashi**

Department of Neuromuscular  
Research, National Institute of  
Neuroscience, National Center of  
Neurology and Psychiatry, Tokyo  
187-8502, Japan

Deadline for manuscript  
submissions:

**closed (20 November 2022)**

### Message from the Guest Editors

Dear Colleagues,

We invite you to contribute to a Special Issue of the journal *Applied Sciences*, “Epigenetic and Transcriptional Regulation in Muscle Cells”, which aims to present recent advancements of epigenome analysis in the field of skeletal muscle.

Skeletal muscle is essential for the movement of organisms. Loss of muscle mass and function due to aging, cachexia or genetic diseases decreases health-related quality of life. Today, interest in muscle research is increasing with the growth of the elderly population; moving forward, it is important to study muscles from various points of view, such as development, metabolism, physiology, and pathology. The epigenome provides a basis of transcription via chemical modification of DNA and histones and acts as a cellular memory, regulating a wide range of organism activity. Several applications have already been developed for epigenetic analysis, such as ChIP-seq, ATAC-seq, mass spectrometry, and epigenome editing. These tools are also applicable to skeletal muscles with appropriate adaptation to skeletal muscle traits.





an Open Access Journal by MDPI

## Editor-in-Chief

**Prof. Dr. Giulio Nicola Cerullo**  
Dipartimento di Fisica,  
Politecnico di Milano, Piazza L.  
da Vinci 32, 20133 Milano, Italy

## Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

## 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), Inspec, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q1 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

## Contact Us

---

*Applied Sciences* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/applsci](http://mdpi.com/journal/applsci)  
[applsci@mdpi.com](mailto:applsci@mdpi.com)  
[X@Applsci](#)