

Special Issue

Molecular Advances in Striated Muscle Physiology

Message from the Guest Editor

Striated muscle, including skeletal and cardiac muscle, is essential to movement, organ function, and systemic homeostasis. Over the past decade, groundbreaking discoveries have significantly expanded our knowledge of the molecular and cellular mechanisms underlying muscle physiology, metabolism, aging, and diseases. This special issue seeks to highlight recent advances in the field, offering insights into the complex regulatory networks that govern muscle function in health and disease. We aim to provide a comprehensive platform for cutting-edge research and in-depth reviews that encompass mitochondrial dynamics and regulation of muscle bioenergetics; myopathies including myositis, dystrophies, atrophy, hypotrophy; muscle aging and regenerative decline; mechanotransduction pathways and their role in muscle adaptation; genetic and epigenetic regulation of muscle development. We especially welcome studies utilizing advanced methodologies such as multi-omics integration, single-cell analysis, and high-resolution imaging. Contributions may include original research, reviews, or emerging perspectives that pave the way for novel therapeutic strategies and translational applications.

Guest Editor

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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.

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