

Special Issue

Research on Skeletal and Cardiac Muscle Regeneration Mechanisms

Message from the Guest Editor

The myogenic and cardiomyogenic differentiations of mesenchymal or other types of stem cells in vitro and in vivo are complex processes, which include cell responsiveness to various compounds and model systems, and direct or indirect interaction between cells and extracellular components, that further regulates intracellular signalling systems and tissue functioning. Despite their diversity, the regeneration mechanisms of skeletal and cardiac muscle occur within the striated muscle environment, whose primary goal is in vitro targeted regulation and subsequent in vivo translation, thereby allowing to improve muscle functioning. In order to better understand the myogenic and cardiomyogenic differentiation processes and their regulation, both in vivo and in vitro myogenic model systems are of crucial importance. Therefore, this Special Issue aims to collate papers focusing on in vivo and in vitro myogenic and cardiomyogenic differentiation mechanisms that highlight new external or internal inducers, cell types, ECM components, scaffolds and other biomodulators to improve the regeneration of skeletal and cardiac muscles and expand their further clinical applications.

Guest Editor

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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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