

Special Issue

Skeletal Muscle Wasting, Regeneration, and Stem Cells

Message from the Guest Editors

Skeletal muscle wasting occurs during aging or pathological conditions, and it involves an imbalance between protein synthesis and degradation. It is the result of multifactorial processes such as chronic inflammation, increased levels of oxidative stress, mitochondrial dysfunctions, and impairment of the regenerative process. The regenerative program is severely compromised during aging or pathological conditions, with a progressive loss of muscle mass and function. This effect seems to be related to the progressive loss of stem cell populations or the lack of signals that prevent damaged tissues from carrying out an efficient regeneration program. To date, no effective countermeasure for skeletal muscle atrophy has been developed. This Special Issue calls for original articles and reviews that provide IJMS readers with the latest information on the molecular mechanisms involved in muscle wasting and regeneration and the role that stem cells play in these processes. Furthermore, particular attention will be paid to possible therapeutic strategies that aim to maintain skeletal muscle homeostasis.

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