

Special Issue

Strategies for Enhancing Skeletal Muscle Recovery and Regeneration in Health and Disease Conditions

Message from the Guest Editors

The skeletal muscle is the most abundant organ in the human body, accounting for approximately 40% of the body mass, and is fundamental for locomotion, body posture, and organism metabolism. Considering that the skeletal muscle is the primary producer of substrates of immune cells, the maintenance of muscle mass is crucial for preserving the integrity of immune system function. Therefore, the amount of muscle mass directly influences the quality of life. In many conditions associated with muscle wasting, such as chronic heart failure, sepsis, chronic kidney failure, cancer, and sarcopenia during aging, an increase in morbidity with a consequent decline in quality of life and increased mortality have been observed. In addition, the skeletal muscle has an outstanding capacity to regenerate after injury due to the presence of muscle stem cells, the main players of the muscle regenerative process. This Special Issue is aimed at a better understanding of molecular mechanisms and a discussion of the recent advances in nutritional and molecular strategies for enhancing skeletal muscle recovery and regeneration in healthy, aged, and diseased conditions.

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