



## Nutrition and Regulation of Muscle Protein Synthesis

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### Message from the Guest Editor

Dear Colleagues,

Skeletal muscle is a crucial tissue for human health since it controls several metabolic activities. Protein synthesis and degradation are two important regulated processes to maintain muscle mass. In atrophic conditions, protein synthesis impairment is associated with several conditions, including physical inactivity, sarcopenia and malnutrition. The availability of nutrients is one of the factors which can influence protein turnover. In fact, when muscle protein breakdown exceeds the rate of muscle protein synthesis, loss of protein occurs involving the ubiquitin-proteasomal system, autophagy, and the calpain signaling. The knowledge of these pathways helps to understand their role in muscle remodeling and in response to diet, knowing that a balanced nutrition intake represents a potential clinical intervention to reactivate protein synthesis during atrophy.

The aim of this Special Issue is to collect original articles or reviews which discuss the therapeutic strategies, based on current nutrition interventions, able to modulate muscle protein turnover in muscle wasting conditions.





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