



## Physical Activity: Relationship between Mitochondrial Energetics and Muscle Quality

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Deadline for manuscript  
submissions:

**closed (30 November 2022)**

### Message from the Guest Editor

Dear Colleagues,

Efficient energy production and overall mitochondrial health are crucial for maintaining skeletal muscle function. Recent data indicate an important link between mitochondrial energetics and the control of muscle mass, suggesting a central role for mitochondrial energetics in regulating muscle mass. For example, mitochondrial oxidative stress has been shown to stimulate muscle protein breakdown by activating lysosome autophagy and proteasome systems and energetic stress, due to reduced ATP production, activating the adenosine monophosphate-activated protein kinase (AMPK)–FoxO3 pathways, leading to increased protein degradation.

Papers related to any aspect of the regulation of skeletal muscle energy metabolism and the adaptations that occur with physical training will be considered for this Special Issue.





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