

## Special Issue

# Rising of New Signatures in Skeletal Muscle Pathologies and Their Possible Role in Disease Pathogenesis

### Message from the Guest Editor

Growing evidence demonstrates the crosstalk between the immune system and the skeletal muscle in muscular dystrophies (MDs), as well as during normal muscle regeneration. Immune cell infiltration into skeletal muscle is a notable feature of the disease pathophysiology but a multitude of secondary defects exist involving metabolic and inflammatory pathways, whose leading players are yet to be elucidated. Steroids are the only effective therapy to delay the onset and control symptoms. As preliminary evidence has revealed the unique features of T cell profiling in MDs, the immuno-characterization of circulating cells and a molecular analysis of their transcriptome and secretome would allow us to identify a subpopulation of cells to be used as disease biomarkers and to decipher new pathological pathways and reveal therapeutic targets. The development and normal homeostasis of both innate and adaptive immune systems have been strictly associated with gut microorganisms, the so-called microbiota. Although numerous genes were unsuccessfully studied as MD clinical targets, Tdark genes should provide us with novel, unexplored therapeutic information.

### Guest Editor

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