

Special Issue

Myoblast and Muscle Cell Genesis and Regeneration

Message from the Guest Editors

Muscle development is a multistep process that involves the commitment of muscle precursor cells to the myoblast lineage, myoblast proliferation, migration and fusion, followed by terminal differentiation and the formation of multinucleated myotubes. Adult muscle repair depends on the population of resident, dormant stem cells termed satellite cells, which are activated during inflammatory response in damaged muscle. Proper muscle cell development requires hormonal stimulation, cell–cell and cell–extracellular matrix communication, as well as cytoskeleton and membrane reorganization. The purpose of this Special Issue is to highlight the molecular background of cellular processes which are critical for proper myogenesis and play a potential role in muscle hypertrophy and dystrophy. **Keywords:** myoblasts; myokines; myogenic regulatory factors; fusion; microRNA; muscle regeneration; myogenesis; satellite cells; hypertrophy; dystrophy

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