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Molecular Insights into Muscular Dystrophy

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Deadline for manuscript submissions:
closed (20 December 2024)

Message from the Guest Editor

Dear Colleagues,

This Special Issue aims to develop the study of muscular dystrophy and mitochondrial metabolism using zebrafish as an animal model.

Previous model studies of muscular dystrophy showed that mitochondria play a major role in muscle repair during contraction. Conversely, mitochondrial dysfunction due to calcium dysregulation and oxidative stress plays a major role in muscle fiber death during disease pathogenesis. Moreover, dissecting the mechanisms that underlie the pathogenesis of muscular dystrophy and clarifying the role of mitochondrial metabolism could increase the possibility of developing new therapies for this group of disorders. Zebrafish are an important tool in the study of muscular dystrophy due to their highly evolutionarily conserved genes, mitochondrial metabolism and physiology involved in both muscle differentiation and muscle contraction.

We highly welcome studies developing new methods and tools to:

(i) generate new zebrafish models of muscular dystrophy, (ii) investigate these models and (iii) perform new high-throughput drug screening that will open up new avenues for the development of therapeutics.

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Message from the Editor-in-Chief

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