Special Issue

Genetics of Motor Neuron Diseases

Message from the Guest Editor

Motor neuron disease is a neurodegenerative condition. Most cases of the disease are sporadic, and approximately 10% are familial. Candidate genes with high penetrance have typically been identified through linkage analysis and next-generation sequencing, and other strategies including genome-wide association studies have been used to identify genes with low disease penetrance. The identification of genetic causes and risk factors is helpful to not only develop better models of disease and understand the pathogenesis, but also to guide the rationale and design of new avenues for therapeutic development. An example of success with this approach comes from the development of an antisense oligonucleotide (nusinersen) which can target exon 7 retention in the SMN2 gene and improve the amount of functional SMN protein in patients with spinal muscular atrophy and deletion in SMN1.

This Special Issue aims to provide a broad and updated overview of the genetics of motor neuron diseases and the resulting clinical and molecular observations which may lead to new therapeutic insights for the treatment of the disease.

Guest Editor

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Deadline for manuscript submissions

closed (25 April 2022)

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Genes

an Open Access Journal by MDPI

Impact Factor 2.8
CiteScore 5.5
Indexed in PubMed

mdpi.com/si/87687

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Message from the Editor-in-Chief

Genes is central to our understanding of biology, and modern advances such as genomics and genome editing have maintained genetics as a vibrant, diverse and fast-moving field. There is a need for good quality, open access journals in this area, and the *Genes* team aims to provide expert manuscript handling, serious peer review, and rapid publication across the whole discipline of genetics. Starting in 2010, the journal is now well established and recognised. Why not consider *Genes* for your next genetics paper?

Editor-in-Chief

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