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# Recent Advances in Amyotrophic Lateral Sclerosis Genetics and Pathophysiology

Guest Editor:

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**closed (31 October 2022)**

## Message from the Guest Editor

Amyotrophic Lateral Sclerosis (ALS) is a relentlessly progressive degenerative disease of upper and lower motor neurons, usually leading to death within 2–5 years. Approximately 10–20% of patients with ALS show a positive family history. Mendelian gene variations account for about 80% of such cases, while the remaining still have an unknown cause. The same genes found in familial cases can explain up to 14% of apparently sporadic ones. Recent advances in ALS genetics, together with studies on cellular and animal models, have pointed out the involvement of several cellular pathways in motor neuron degeneration, including DNA repair, gene expression, RNA metabolism, transport of molecules and vesicles, protein localisation, proteasome activity, lysosomal function, and autophagy. The scope of this special issue is to collect recent advances in ALS genetics and pathophysiology, since the increasing knowledge in this fields might pave the way for more targeted therapeutic approaches.

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## Message from the Editor-in-Chief

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