CLAIMS

1. Use of a GCN5L1 (GCN5 (general control of amino acid synthesis 5)-like 1) inhibitor in the manufacture of a medicament for treating an amyotrophic lateral sclerosis (ALS) or ALS-like motor neuron
wherein the GCN5L1 inhibitor comprises an oligonucleotide.

2. The use of claim 1, wherein the oligonucleotide is selected from the group consisting of: antisense oligonucleotide (ASO), gapmer, short interfering RNA (siRNA), short hairpin RNA (shRNA), microRNA (miRNA), and combinations thereof.

3. The use of claim 1 or claim 2, wherein the oligonucleotide comprises:
    a) a sequence that is complementary to a coding sequence (CDS) of *BLOC1S1* gene or part thereof, or SEQ ID NO: 3 or part thereof, or SEQ ID NO: 4 or part thereof; or
    b) a sequence sharing at least about 85% sequence identity with the sequence in a).

4. The use of any one of claims 1 to 3, wherein the oligonucleotide comprises a sequence sharing at least about 85% sequence identity with SEQ ID NO: 1, or a sequence differing from SEQ ID NO: 1 by about one nucleotide, about two nucleotides, about three nucleotides, or about four nucleotides.

5. Use of a GCN5L1 (GCN5 (general control of amino acid synthesis 5)-like 1) inhibitor in the manufacture of a medicament for treating ALS or an ALS-like disease, wherein said inhibitor is a oligonucleotide agent sharing at least about 85% sequence identity with SEQ ID NO: 1, or a sequence differing from SEQ ID NO: 1 by about one nucleotide, about two nucleotides, about three nucleotides, or about four nucleotides.

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6. A method of identifying an agent for treating ALS or an ALS-like disease, the method comprising:

contacting an ALS or ALS-like motor neuron with a candidate agent; and

determining whether mitochondrial protein acetylation in the motor neuron is reduced after the contact; and

wherein where mitochondrial protein acetylation in the motor neuron is reduced after the contact, concluding that the candidate agent is an agent for treating ALS or an ALS-like disease,

wherein where mitochondrial protein acetylation in the motor neuron is not reduced after the contact, concluding that the candidate agent is not an agent for treating ALS or an ALS-like disease,

wherein the agent for treating ALS or an ALS-like disease so identified comprises a GCN5L1 (GCN5 (general control of amino acid synthesis 5)-like 1) inhibitor.