CLAIMS

1. A method for treating and/or ameliorating amyotrophic lateral sclerosis (ALS) in a subject in need of treatment, the method comprising administering to the subject a therapeutically effective amount of a composition comprising an adeno-associated viral (AAV) vector comprising a nucleic acid sequence positioned between two inverted terminal repeats (ITRs) for inhibiting or suppressing expression of SOD1 in a cell, wherein said nucleic acid sequence comprises a sense strand sequence and an antisense strand sequence, wherein the sense strand sequence comprises at least 15 contiguous nucleotides differing by no more than 3 nucleotides from the nucleotide sequence of sequences listed in Table 3, Table 11 or Table 14 and the antisense strand sequence comprises at least 15 contiguous nucleotides differing by no more than 3 nucleotides from the nucleotide sequence of sequences listed in Table 3, Table 11 or Table 14 and wherein said sense strand sequence and antisense strand sequence share a region of complementarity of at least four nucleotides in length.

2. The method of claim 1, wherein the expression of SOD1 is inhibited or suppressed.

3. The method of claim 2, wherein the SOD1 is wild type SOD1, mutated SOD1 with at least one mutation or both wild type SOD1 and mutated SOD1 with at least one mutation.

4. The method of claim 1, wherein the expression of SOD1 is inhibited or suppressed by about 20% to about 100%.

5. The method of claim 1, wherein the ALS is familial ALS with an identified SOD1 gene mutation.

6. The method of claim 1, wherein the ALS is sporadic ALS.