CLAIMS

1. Use of masitinib, or a pharmaceutically acceptable salt or solvate thereof, in the manufacture of a medicament for the treatment of patients suffering from amyotrophic lateral sclerosis (ALS) having a progression of ALSFRS-R score before treatment initiation of less than 1.1 points per month.

2. The use according to claim **1**, wherein said patients have a progression of ALSFRS-R score before treatment initiation of less than 0.8 points per month.

3. The use according to claim **1**, wherein said patients have a progression of ALSFRS-R score before treatment initiation of less than 1.1 points per month and equal to or greater than 0.8 points per month (≥0.8 to <1.1 points per month).

4. The use according to any one of claims **1** to **3**, wherein said pharmaceutically acceptable salt of masitinib is masitinib mesilate.

5. The use according to any one of claims **1** to **4,** wherein masitinib, or a pharmaceutically acceptable salt or solvate thereof, is to be administered at a dose ranging from 1.0 to 9.0 mg/kg/day (mg per kilo body weight per day).

6. The use according to any one of claims **1** to **5**, wherein masitinib, or a pharmaceutically acceptable salt or solvate thereof, is to be administered at an initial dose of 3.0 mg/kg/day during at least 4 weeks, then at 4.5 mg/kg/day during at least 4 weeks, and at 6.0 mg/kg/day thereafter, with each dose escalation being subjected to toxicity controls.

7. The use according to any one of claims **1** to **5**, wherein masitinib, or a pharmaceutically acceptable salt or solvate thereof, is to be administered at a dose of 4.5 mg/kg/day.

8. The use according to any one of claims **1** to **5**, wherein masitinib, or a pharmaceutically acceptable salt or solvate thereof, is to be administered at a dose of 6 mg/kg/day.

9. The use according to any one of claims **1** to **8**, wherein masitinib, or a pharmaceutically acceptable salt or solvate thereof, is to be administered in two daily intakes.

10. The use according to any one of claims **1** to **9**, wherein masitinib, or a pharmaceutically acceptable salt or solvate thereof, is to be administered orally.

11. The use according to any one of claims **1** to **10**, wherein masitinib, or a pharmaceutically acceptable salt or solvate thereof, is to be administered in combination with at least one other pharmaceutically active ingredient.

12. The use according to claim **11**, wherein said other pharmaceutically active ingredient is an antiglutamate compound, especially riluzole; topiramate; gabapentin; lamotrigine; talampanel; ceftriaxone; or an inhibitor of glutamate carboxypeptidase II.

13. The use according to claim **11** or **12**, wherein said other pharmaceutically active ingredient is riluzole.