present invention has thus been completed.

[0012]

Specifically, the present invention provides as follows.

[1] A cell preparation for amelioration and/or treatment of chronic lung disease, comprising pluripotent stem cells positive for SSEA-3 isolated from mesenchymal tissue of a body or cultured mesenchymal cells.

[1a] Use of a cell preparation in the manufacture of a medicament for amelioration and/or treatment of chronic lung disease, wherein the cell preparation comprises pluripotent stem cells positive for SSEA-3 isolated from mesenchymal tissue of a body or cultured mesenchymal cells.

[2] The cell preparation according to [1] above, comprising a cell fraction wherein the pluripotent stem cells positive for SSEA-3 have been concentrated by external stress treatment.

[3] The cell preparation according to [1] or [2] above, wherein the pluripotent stem cells are CD105-positive.

[4] The cell preparation according to any one of [1] to [3] above, wherein the pluripotent stem cells are CD117-negative and CD146-negative.

[5] The cell preparation according to any one of [1] to [4] above, wherein the pluripotent stem cells are CD117-negative, CD146-negative, NG2-negative, CD34-negative, vWF-negative, and CD271-negative.

[6] The cell preparation according to any one of [1] to [5] above, wherein the pluripotent stem cells are CD34-negative, CD117-negative, CD146-negative, CD271-negative, NG2-negative, vWF-negative, Sox10-negative, Snai1-negative, Slug-negative, Tyrp1-negative, and Dct negative.

[7] The cell preparation according to any one of [1] to [6] above, wherein the pluripotent stem cells have all of the following properties:

(i) low or non-existent telomerase activity;

(ii) having the ability to differentiate into any of three germ layers;

(iii) exhibiting no neoplastic proliferation; and

(iv) having self-renewal ability.

[8] The cell preparation according to any one of [1] to [7] above, wherein the chronic lung disease is selected from the group consisting of bronchopulmonary dysplasia (BPD), Wilson-Mikity syndrome (WMS), persistent pulmonary hypertension of the newborn (PPHN), and hypertension of the newborn.

[9] The cell preparation according to any one of [1] to [8] above, wherein the pluripotent stem cells have the ability to engraft into lung tissue.

[10] The cell preparation according to any one of [1] to [9] above, which is to be administered to a human newborn, an infant, or a child as a subject with the pluripotent stem

cells at from approximately 1×10^{4} cells/individual to approximately 3×10^{8} cells/individual, as a therapeutically effect amount.

[11] The cell preparation according to any one of [1] to [10] above, which is to be

CLAIMS

1. Use of a cell preparation in the manufacture of a medicament for amelioration and/or treatment of chronic lung disease, wherein the cell preparation comprises pluripotent stem cells positive for SSEA-3 isolated from mesenchymal tissue of a body or cultured mesenchymal cells.

2. The use according to claim 1, wherein the cell preparation comprises a cell fraction wherein the pluripotent stem cells positive for SSEA-3 have been concentrated by external stress treatment.

3. The use according to claim 1 or 2, wherein the pluripotent stem cells are CD105-positive.

4. The use according to any one of claims 1 to 3, wherein the pluripotent stem cells are CD117-negative and CD146-negative.

5. The use according to any one of claims 1 to 4, wherein the pluripotent stem cells are CD117-negative, CD146-negative, NG2-negative, CD34-negative, vWF-negative, and CD271-negative.

6. The use according to any one of claims 1 to 5, wherein the pluripotent stem cells are CD34-negative, CD117-negative, CD146-negative, CD271-negative, NG2-negative, vWF-negative, Sox10-negative, Snai1-negative, Slug-negative, Tyrp1-negative, and Dct negative.

7. The use according to any one of claims 1 to 6, wherein the pluripotent stem cells have all of the following properties:

(i) low or non-existent telomerase activity;

(ii) having the ability to differentiate into any of three germ layers;

(iii) exhibiting no neoplastic proliferation; and

(iv) having self-renewal ability.

8. The use according to any one of claims 1 to 7, wherein the chronic lung disease is selected from the group consisting of bronchopulmonary dysplasia (BPD), Wilson-Mikity syndrome (WMS), persistent pulmonary hypertension of the newborn (PPHN), and hypertension of the newborn.

9. The use according to any one of claims 1 to 8, wherein the pluripotent stem cells have the ability to engraft into lung tissue.

10. The use according to any one of claims 1 to 9, wherein the medicament is to be administered to a human newborn, an infant, or a child as a subject with the pluripotent stem cells at from approximately 1×10^4 cells/individual to approximately 3×10^8 cells/individual, as a therapeutically effect amount.

11. The use according to any one of claims 1 to 10, wherein the medicament is to be administered to a human newborn, an infant, or a child as a subject with the pluripotent stem cells in an amount of cells per body weight of approximately 3×10^4 cells/kg to approximately 3×10^7 cells/kg per individual subject, as a therapeutically effect amount.