Non-patent Document 5: Kuroda Y et al. Proc Natl Acad Sci USA,2010: 107: 8639-8643.

Non-patent Document 6: Wakao S et al. Proc Natl Acad Sci USA,2011: 108: 9875-9880.

Non-patent Document 7: Kuroda Y et al. Nat Protc, 2013: 8: 1391-1415.

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SUMMARY

[0011a]

In one aspect, the present disclosure provides use of an SSEA-3-positive pluripotent stem cell enriched fraction, wherein said pluripotent stem cell is derived from a mesenchymal tissue in a living body or a cultured mesenchymal cell in manufacture of a cell product for treatment of a peripheral blood flow disorder.

PROBLEMS TO BE SOLVED BY THE INVENTION

[0012]

An object of the present invention is to provide a cell product for treating peripheral blood flow disorders including peripheral arterial disease.

MEANS FOR SOLVING THE PROBLEMS

[0013]

The present inventors have found that administration of human Muse cells to an immunodeficient mouse model of hindlimb ischemia that do not reject human cells via a blood vessel or the like, or directly to a peripheral arterial site and its surroundings in the subject results in accumulation and engraftment of the Muse cells to the injured peripheral arterial site, and reconstruction of blood vessels in the impaired peripheral arterial site, thereby ameliorating or treating vascular disorders in the peripheral arterial site. The present inventors have found thus that the Muse cells can be used in treatment of peripheral blood flow disorder including peripheral

CLAIMS

1. Use of an SSEA-3-positive pluripotent stem cell enriched fraction, wherein said pluripotent stem cell is derived from a mesenchymal tissue in a living body or a cultured mesenchymal cell in manufacture of a cell product for treatment of a peripheral blood flow disorder.

2. The use according to claim 1, wherein the peripheral blood flow disorder is a peripheral arterial disease.

3. The use according to claim 2, wherein the peripheral arterial disease is chronic arterial obstruction in a limb.

4. The use according to claim 2 or 3, wherein the peripheral arterial disease is arteriosclerosis obliterans.

5. The use according to claim 2 or 3, wherein the peripheral arterial disease is thromboangiitis obliterans (Buerger's disease).

6. The use according to claim 2 or 3, wherein the peripheral arterial disease is popliteal artery entrapment syndrome.

7. The use according to any one of claims 1 to 6, wherein the pluripotent stem cell is one having all of the following characteristics:

(i) having 1/5 or less telomerase activity as compared with that of HeLa cell or no telomerase activity;

(ii) capable of differentiating into any of tridermic cells;

(iii) showing no neoplastic proliferation; and

(iv) having self-renewal capacities.

8. The use according to any one of claims 1 to 6, wherein the pluripotent stem cell is one having all of the following characteristics:

(i) SSEA-3-positive;

(ii) CD105-positive;

(iii) having 1/5 or less telomerase activity as compared with that of HeLa cell or no telomerase activity;

(iv) capable of differentiating into any of tridermic cells;

(v) showing no neoplastic proliferation; and

(vi) having self-renewal capacities.