[CLAIMS]

1. Stem cells obtained by culturing monocytes in the presence of (i) M-CSF and (ii) at least one member selected from the group consisting of ganglioside and water-soluble plant-derived extract extracted by the Folch extraction method, thereby dedifferentiating the monocytes.

2. The stem cells according to claim 1 wherein an active ingredient of the water-soluble plant-derived extract is sugar or a sugar-containing complex, the active ingredient dedifferentiating the monocytes.

3. The stem cells according to claim 1 wherein an active ingredient of the water-soluble plant-derived extract has a molecular weight of 1000 to 500000, the active ingredient dedifferentiating the monocytes.

4. The stem cells according to claim 1 wherein an active ingredient of the water-soluble plant-derived extract is adsorbed to a Con A column, the active ingredient dedifferentiating the monocytes.

5. The stem cells according to claim 1 wherein an active ingredient of the water-soluble plant-derived extract is adsorbed to an anion exchange resin, the active ingredient dedifferentiating the monocytes.

6. The stem cells according to claim 1, wherein the water-soluble plant-derived extract is a plant-derived Folch-extracted aqueous phase fraction or a purified product thereof.

7. The stem cells according to claim 1, wherein the monocytes are human monocytes.

8. The stem cells according to any one of claims 1 to 7, wherein at least one member of undifferenciated markers Nanog, Nestin, c-Kit, CD9, and Oct3/4 is expressed, and the amount of CXCR4 gene expression assayed by RT-PCR is more than two or three times greater than that in stem cells obtained by culturing monocytes in the sole presence of M-CSF.

~~9. Stem cells in which at least one member of undifferenciated markers Nanog, Nestin, c-Kit, CD9, and Oct3/4 is expressed, and the amount of CXCR4 gene expression assayed by RT-PCR is more than three times greater than that in bone marrow-derived mesenchymal stem cells.~~

~~10~~9. A method of producing stem cells, comprising culturing monocytes in the presence of (i) M-CSF and (ii) at least one member selected from the group consisting of ganglioside and water-soluble plant-derived extract extracted by the Folch extraction method.

~~11~~10. The method according to claim ~~10~~ 9 wherein the culture is performed for 7 to 14 days.

~~12~~11. A culture medium for dedifferentiating monocytes containing (i) M-CSF and (ii) at least one member selected from the group consisting of ganglioside and water-soluble plant-derived extract extracted by the Folch extraction method.

~~13~~12. A pharmaceutical composition containing the stem cells according to any one of claims 1 to ~~9~~ 8 as an active ingredient.

~~14~~13. A cell drug agent containing the stem cells according to any one of claims 1 to ~~9~~ 8 as an active ingredient.

~~15~~14. A dedifferentiation inducing agent containing (i) M-CSF and (ii) at least one member selected from the group consisting of ganglioside and water-soluble plant-derived

extract extracted by the Folch extraction method as active ingredients.

~~16~~15. An agent for treating diseases related to damaged cells, tissues or organs, containing at least one member selected from the group consisting of ganglioside and water-soluble plant-derived extract extracted by the Folch extraction method as an active ingredient.

~~17~~16. The agent for treating diseases related to damaged cells, tissues or organs according to claim ~~16~~15, wherein the diseases are selected from the group consisting of external injuries, inflammatory diseases, damaged bone or cartilage, cardiovascular diseases, neurological disorders, liver diseases, renal diseases, diabetes, atopic dermatitis, and GVHD.

~~18~~17. The agent for treating diseases related to damaged cells, tissues or organs according to claim ~~16~~15, wherein the diseases are selected from the group consisting of external injuries, pancreatitis, radiation damage, dermatomyositis, multiple myositis, necrotic fasciitis, chronic bronchitis, bone fracture, osteoporosis, osteocartilaginous fracture, osteochondritis, dilated cardiomyopathy, myocardial infarction, ischaemic cardiomyopathy, cardiac insufficiency, myocardium hypertrophy, congestive heart failure, restenosis, arrhythmia, atherosclerosis, vasculitis, peripheral neuropathy, neuropathic pain, cerebral apoplexy, encephalitis, meningitis, diabetic neuropathy, attention deficit disorder, autism, Alzheimer disease, Parkinson's disease, Creutzfeldt-Jakob disease, external injuries or ischemia of the brain or spine, liver cirrhosis, chronic hepatitis, chronic renal failure, glomerular nephritis, kidney ischemia, diabetes, atopic dermatitis, and GVHD.

~~19~~18. A cell drug kit containing at least the stem cells according to any one of claims 1 to ~~9~~ 8 as an essential ingredient.

~~20~~19. A kit for producing dedifferentiated cells, comprising (i) M-CSF and (ii) at least one member selected from the group consisting of ganglioside and water-soluble plant-derived extract extracted by the Folch extraction method as essential ingredients.

~~21~~20. The kit according to claim ~~20~~19, further comprising monocytes as a component.

~~22~~21. The stem cells, the method of producing stem cells, the culture medium for dedifferentiating monocytes, the cell drug agent, the agent for treating diseases, the dedifferentiation inducing agent, the cell drug kit, or the kit for producing dedifferentiated cells according to claim 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19~~,~~ or 20 ~~or 21~~ wherein ganglioside is at least one member selected from the group consisting of GD1a, GD1b, GD2, GD3, GM1, GM2, GM3, GT1b, and GQ1b.