

Claims:**What is claimed is**

1. A method of preparing a mesenchymal stem cell storing or transport formulation, wherein the formulation comprises about 0.5 to about 10 million mesenchymal stem cells, the method comprising
 - a) suspending mesenchymal stem cells in a pre-defined volume of a crystalloid solution, wherein the crystalloid solution comprises about 0.5 % to about 5 % (w/v) serum albumin, thereby obtaining a first cell suspension,
 - b) determining the concentration of the mesenchymal stem cells in the first cell suspension, and determining the volume of the first cell suspension needed to prepare a formulation comprising about 0.5 to about 10 million mesenchymal stem cells,
 - c) mixing the determined volume of the first cell suspension with a volume of a liquid carrier, wherein said liquid carrier comprises about 0.5% to about 5 % (w/v) serum albumin as well as
 - i) Trolox;
 - ii) Na^+ ;
 - iii) K^+ ;
 - iv) Ca^{2+} ,
 - v) Mg^{2+}
 - vi) Cl^- ;
 - vii) H_2PO_4^- ;
 - viii) HEPES;
 - ix) Lactobionate;
 - x) Sucrose;
 - xi) Mannitol;
 - xii) Glucose;
 - xiii) Dextran-40;
 - xiv) Adenosine, and
 - xv) Glutathione,

thereby obtaining the mesenchymal stem cell storing or transport formulation comprising about 0.5 to about 10 million mesenchymal stem cells.

2. The method of claim 1, wherein the pre-defined volume of the crystalloid solution used for suspending the mesenchymal stem cells is about 1 ml to about 10 ml.
3. The method of claim 1 or 2, wherein, after mixing the determined volume of the first cell suspension with the volume of the liquid carrier, the total volume of the mesenchymal stem cell storing or transport formulation is about 1 ml.
4. The method of claim 2, wherein the formulation comprises about 0.5 to about 10 million viable mesenchymal stem cells.
5. The method of any of claims 1 to 4, wherein the formulation comprises about 1, about 3 or about 5 million mesenchymal stem cells.
6. The method of any of the foregoing claims, wherein the mesenchymal stem cells have been harvested from a cell culture vessel prior to resuspending the mesenchymal stem cells in the pre-defined volume of the crystalloid solution.
7. The method of any of the foregoing claims, wherein both the crystalloid solution and the liquid carrier comprise the same concentration of serum albumin.
8. The method of claim 7, wherein both the crystalloid solution and the liquid carrier comprise about 0.5% to about 5% (w/v) serum albumin.
9. The method of claim 7 or 8, wherein both the crystalloid solution and the liquid carrier comprise about 1% to about 5% (w/v) serum albumin.
10. The method of any one of the claims 7 to 9, wherein both the crystalloid solution and the liquid carrier comprise about 1% to about 3% (w/v) serum albumin.

11. The method of any one of the claims 7 to 10, wherein both the crystalloid solution and the liquid carrier comprise about 1% (w/v) serum albumin.
12. The method of any the forgoing claims, wherein the serum albumin is human serum albumin.
13. The method of any the forgoing claims, wherein the crystalloid solution comprises sodium, potassium, magnesium and chloride.
14. The method of any the forgoing claims, wherein the crystalloid solution is PlasmaLyte or Ringer's lactate.
15. The method of claim 14, wherein the mesenchymal stem cell storing or transport formulation comprises not more than 20% PlasmaLyte.
16. The method of any the forgoing claims, wherein the mesenchymal stem cells are mesenchymal stem cells selected from the group consisting of mesenchymal stem cells of the umbilical cord, placental mesenchymal stem cells, mesenchymal stem cells of the cord-placenta junction, mesenchymal stem cells of the cord blood, mesenchymal stem cells of the bone marrow, and adipose-tissue derived mesenchymal stem cells.
17. The method of claim 16, wherein the mesenchymal stem cells of the umbilical cord are selected from the group consisting of mesenchymal stem cells of the amnion, perivascular mesenchymal stem cells, mesenchymal stem cells of Wharton's jelly, mesenchymal stem cells of the amniotic membrane of umbilical cord.
18. The method of claim 16 or 17, wherein the mesenchymal stem cells of the amniotic membrane of the umbilical cord are a mesenchymal stem cell population, wherein at least about 90 % or more cells of the mesenchymal stem cell population express each of the following markers: CD73, CD90 and CD105.

19. The method of claim 18, wherein at least about 90 % or more cells of the mesenchymal stem cell population lack expression of the following markers: CD34, CD45 and HLA-DR.
20. The method of claim 18 or 19, wherein at least about 91 % or more, about 92 % or more, about 93 % or more, about 94 % or more, about 95 % or more, about 96 % or more, about 97 % or more, about 98 % or more about 99 % or more cells of the mesenchymal stem cell population express each of CD73, CD90 and CD105 and lack expression of each of CD34, CD45 and HLA- DR (Human Leukocyte Antigen – antigen D Related).
21. A mesenchymal stem cell storing or transport formulation obtained by a method as defined in any of claims 1 to 20.
22. A mesenchymal stem cell storing or transport formulation obtainable by a method as defined in any of claims 1 to 20.
22. A method of transporting mesenchymal stem cells, the method comprising transporting said mesenchymal stem cells in a mesenchymal stem cell storing or transport formulation as defined in claim 21 or 22.
23. The method of claim 22, wherein the transporting is performed for about 7 days or less.
24. The method of any one of claims 22 to 23, wherein the transporting is performed at a temperature of about -5°C to about 15°C.
25. The use of a mesenchymal stem cell storing or transport formulation as defined in claim 21 or 22 for the manufacture of the pharmaceutical composition for treating a subject having a disease, the use comprising topically administering

mesenchymal stem cells that have been stored or transported in a mesenchymal stem cell storing or transport formulation as defined in claim 21 or 22.

26. The use of claim 25, wherein the mesenchymal stem cells are administered to the subject after separating the mesenchymal stem cells from the mesenchymal stem cell storing or transport formulation.
27. The use of claim 26, wherein separating the mesenchymal stem cells from the mesenchymal stem cell storing or transport formulation comprises centrifugation.
28. The method of claim 26 and 27, separating the mesenchymal stem cells from the mesenchymal stem cell storing or transport formulation comprises withdrawing the cell population from the vial by means of syringe.
29. The use of any of the claims 25 to 28, wherein the mesenchymal stem cells are applied in a dosage of about 3, about 5 or about 10 million cells.
30. The use of any one of claims 25 to 29, wherein the mesenchymal stem cell population is applied within about 72 hours, about 48 hours, about 24 hours, about 12 hours, about 6 hours or less from the time point the mesenchymal stem cell population has been harvested.
31. The use of any one of claims 25 to 30, wherein the disease is a skin disease or a wound.
32. The use of claim 31, wherein the wound is caused by a burn, a bite, a trauma, a surgery, or a disease.
33. The use of claim 32, wherein the wound is caused by diabetic disease, wherein the wound is preferably a diabetic wound.
34. The use of claim 33, wherein the wound is diabetic foot ulcer.

35. The use of any of claims 25 to 34, wherein a dosage of about 10 million cells, of about 5 million cells, of about 4 million cells, of about 3 million cells, of about 2 million cells, of about 1 million cells, of about 0.5 million cells, of about 0.25 million cells or of less than 0.25 million cells is administered once or twice a week.
36. The use of claim 35, wherein the dosage of about 10 million cells, of about 5 million cells, of about 4 million cells, of about 3 million cells, of about 2 million cells, of about 1 million cells, of about 0.5 million cells, of about 0.25 million cells or of less than 0.25 million cells is administered one or twice a week for a period of time of three weeks, of four weeks, or five weeks or of six weeks, or of seven weeks, or of eight weeks or of ten weeks or more weeks.
37. A unit dosage of mesenchymal stem cells obtained by a method as defined in any of claims 1 to 20.
38. A unit dosage of mesenchymal stem cells obtainable by a method as defined in any of claims 1 to 20.
39. The unit dosage of claims 37 or 38, wherein the unit dosage comprises about 0.5 to about 10 million mesenchymal stem cells in a volume of 1 ml.