Claims

1. A composition comprising adipose tissue-derived cells and adipose tissue-derived cell secretions.

2. The composition according to claim 1, wherein the cells are adherent cells.

3. The composition according to claim 1, wherein the cells are mesenchymal stem cells.

4. The composition according to claim 1, wherein said composition is a frozen composition.

5. The composition according to claim 1, wherein the adipose tissue-derived cell secretions comprise clarified media from culture of adipose tissue-derived cells.

6. The composition according to claim 1, wherein the adipose tissue-derived cell secretions is a concentrated preparation of media from culture of adipose tissue-derived cells.

7. The composition according to claim 6, wherein the adipose tissue-derived cell secretions is a preparation concentrated between 2-fold and 20-fold.

8. The composition according to claim 1, further comprising adipocytes.

9. The composition according to claim 1, wherein said cells are progeny cells from culture of an adipose tissue-derived cell suspension.

10. The composition according to claim 1, wherein said cells comprise a cell line obtained by culture of an adipose tissue-derived cell suspension.

11. The composition according to claim 9, wherein said progeny cells are from multiple passaging of cells derived from an adipose tissue-derived cell suspension.

12. The composition according to claim 11, wherein said multiple passaging comprises five or more passages.

13. The composition according to claim 11, wherein said multiple passaging comprises ten or more passages.

14. The composition according to claim 1, wherein the composition comprises cells of an adipose tissue-derived cell line which has been frozen multiple times.

15. A method for the cryopreservation of a cell, the method comprising combining said cell with a composition comprising cell secretions and storing said combination in a frozen state.

16. The method according to claim 15, wherein said method is for the cryopreservation of a cell line.

~~17. The method according to claim 15, wherein prior to said storing the combination is held at room temperature for up to one hour.~~

~~18. The method according to claim 15, wherein said cell is an adherent cell.~~

~~19. The method according to claim 15, wherein said cell is a mesenchymal stem cell.~~

~~20. The method according to claim 15, wherein said cell is an adipose tissue-derived cell.~~

~~21. The method according to claim 16, wherein said cell line is an adipose tissue-derived cell line.~~

~~22. The method according to claim 15, wherein said composition comprising cell secretions comprises clarified media from culture of an adipose tissue-derived cell suspension.~~

~~23. The method according to claim 15, wherein said composition comprising cell secretions comprises concentrated media from culture of an adipose tissue-derived cell suspension.~~

~~24. The method according to claim 15, wherein said composition comprising cell secretions comprises media from culture of an adipose tissue-derived cell suspension concentrated between 2-fold and 20-fold.~~

~~25. The method according to claim 16, wherein said cell line has been passaged multiple times.~~

~~26. The method according to claim 16, wherein said cell line has been passaged more than five times.~~

~~27. The method according to claim 16, wherein said cell line has been passaged more than ten times.~~

~~28. The method according to claim 16, wherein said cell line has been frozen multiple times.~~

Claims

1~~29~~. ~~A method of alleviating pain in a mammalian subject, the method comprising administering to the subject~~ Use of a pharmaceutical composition which comprises (i) adipose tissue-derived cell secretions, or (ii) an adipose tissue-derived cell suspension, or (iii) a combination of (i) and (ii), in the manufacture of a medicament for alleviating pain in a mammalian subject.

2. The use according to claim 1, wherein the pharmaceutical composition is to be administered to said subject by intra-articular injection or by intramuscular injection or by subcutaneous injection or by topical administration.

3. The use according to claim 1, wherein the pain is back pain, or is pain associated with a burn injury, an inflammatory disorder, a ligament injury, a tendon injury, or the sciatic nerve, or is neuropathic pain.

4. The use according to claim 3, wherein the neuropathic pain is facial pain, pain of the teeth, jaw, gum or of a limb.

5. The use according to claim 1, wherein the adipose tissue-derived cell suspension (i) comprises adipocytes or (ii) is substantially free of adipocytes.

6. The use according to claim 1, wherein the subject is to be selected from the group consisting of (i) a human, (ii) poultry, (iii) an equine animal, (iv) a feline animal, (v) a canine animal, (vi) a bovine animal, and (vii) a porcine animal.

7. The use according to claim 1, wherein the adipose tissue-derived cell secretions or the adipose tissue-derived cell suspension is (i) derived from adipose tissue allogeneic to the recipient subject or animal, or (ii) derived from the intended recipient subject or animal, or (iii) derived from adipose tissue xenogeneic to the recipient subject or animal. ~~wherein said administration to said subject is by intramuscular injection or by subcutaneous injection or topical administration.~~

~~30. A method of alleviating back pain in a mammalian subject, the method comprising administering to the subject a pharmaceutical composition which comprises (i) adipose tissue-derived cell secretions, or (ii) an adipose tissue-derived cell suspension,~~

or (iii) a combination of (i) and (ii), wherein said administration to said subject is by intramuscular injection or by subcutaneous injection or topical administration.

31. A method of alleviating neuropathic pain in a mammalian subject, the method comprising administering to the subject a pharmaceutical composition which comprises (i) adipose tissue-derived cell secretions, or (ii) an adipose tissue-derived cell suspension, or (iii) a combination of (i) and (ii).

32. A method of treating a condition selected from the group consisting of an inflammatory disorder, a ligament injury and a tendon injury, or alleviating pain associated with an inflammatory disorder, a ligament injury or a tendon injury, in a mammalian subject, comprising administering to the subject a pharmaceutical composition which comprises (i) adipose tissue-derived cell secretions, or (ii) an adipose tissue-derived cell suspension, or (iii) a combination of (i) and (ii), wherein said administration to said subject is at a site remote from the site of said condition.

33. A method of treating a joint disease or condition in a subject, the method comprising administering to the subject a pharmaceutical composition which comprises (i) adipose tissue-derived cell secretions, or (ii) an adipose tissue-derived cell suspension, or (iii) a combination of (i) and (ii), wherein said administration to said subject is at a site remote from the site of said condition.

34. The method according to claim 29, wherein the pain is associated with a burn injury, an inflammatory disorder, a ligament injury, a tendon injury, or the sciatic nerve.

35. The method according to claim 31, wherein the neuropathic pain is facial pain, pain of the teeth, jaw, gum or of a limb.

36. The method according to any one of claims 29 to 33, wherein the adipose tissue-derived cell suspension comprises adipocytes.

37. The method according to any one of claims 29 to 33, wherein the adipose tissue-derived cell suspension is substantially free of adipocytes.

38. The method according to claim 32 or 34, wherein the inflammatory disorder or condition is selected from the group consisting of osteoarthritis, stifle disease, wobblers, a tendon injury, a ligament injury, atopic dermatitis, rheumatoid arthritis, back pain, and multiple sclerosis.

39. The method according to any one of claims 29 to 38, wherein the administration is subcutaneous administration.

40. The method according to any one of claims 29 to 38, wherein the administration is intra-muscular administration.

~~41. The method according to any one of claims 29 to 40, wherein the subject is poulty or an equine, feline, canine, bovine or porcine animal.~~

~~42. The method according to any one of claims 29 to 33, wherein the subject is a human.~~

~~8~~43. The ~~method~~ use according to ~~any one of~~ claim ~~1s 29 to 42~~, wherein the adipose tissue-derived cell secretions is a preparation concentrated by between 2-fold and 20-fold.

9. The use according to claim 1, wherein said adipose tissue-derived cell secretions comprises concentrated media from culture of an adipose tissue-derived cell suspension,

optionally wherein said adipose tissue-derived cell suspension (i) comprises adipocytes and adipose tissue-derived mesenchymal stem cells or (ii) is substantially free of adipocytes,

optionally wherein said media from culture of an adipose tissue-derived cell suspension is concentrated between 2-fold and 20-fold.

~~44. The method according to any one of claims 29 to 42, wherein the adipose tissue-derived cell secretions or the adipose tissue-derived cell suspension is derived from adipose tissue allogeneic to the recipient subject or animal.~~

~~45~~10. The ~~method~~ use according to ~~any one of~~ claim ~~1s 29 to 43~~, wherein the ~~method~~ use further comprises (i) thawing frozen adipose tissue-derived cell secretions, or (ii) thawing frozen adipose tissue-derived cell suspension, or (iii) thawing a frozen combination of adipose tissue-derived cell secretions and an adipose tissue-derived cell suspension, or (iv) thawing a frozen pharmaceutical composition of any of (i), (ii) or (iii), prior to administration to the recipient subject or animal.

11~~46~~. The ~~method~~ use according to claim ~~45~~10, wherein the frozen secretions, cell suspension, combination thereof, or pharmaceutical composition thereof, is to be administered to the recipient subject or animal within two hours of thawing.

~~47. The method according to any one of claims 29 to 33, wherein the composition is a composition according to claim 1.~~

~~48. Use of (i) adipose tissue-derived cell secretions, or (ii) an adipose tissue-derived cell suspension, or (iii) a combination of (i) and (ii), for the preparation of a pharmaceutical composition for alleviating pain in a mammalian subject.~~

~~49. Use of (i) adipose tissue-derived cell secretions, or (ii) an adipose tissue-derived cell suspension, or (iii) a combination of (i) and (ii), for the preparation of a~~

~~pharmaceutical composition for use in the treatment of a condition selected from the group consisting of an inflammatory disorder, a ligament injury and a tendon injury, or alleviating pain associated with an inflammatory disorder, a ligament injury or a tendon injury, in a mammalian subject, wherein the composition is suitable for administration to a site of said subject remote from the site of said condition.~~

~~50. Use of (i) adipose tissue-derived cell secretions, or (ii) an adipose tissue-derived cell suspension, or (iii) a combination of (i) and (ii), for the preparation of a pharmaceutical composition for use in the treatment of a joint disease or condition in a~~

~~mammalian subject, wherein the composition is suitable for administration to a site of said subject remote from the site of said condition.~~

~~51. The use according to any one of claims 48 to 50, wherein the adipose tissue-derived cell suspension comprises adipocytes.~~

~~52. The use according to any one of claims 48 to 50, wherein the adipose tissue-derived cell suspension is substantially free of adipocytes.~~

1254. A kit comprising (a) a pharmaceutical composition selected from the group consisting of (i) a composition comprising adipose tissue-derived secretions, (ii) a composition comprising an adipose tissue-derived cell suspension, and (iii) a combination of (i) and (ii); and (b) instructions for use of said kit in alleviating pain in a mammalian subject.

13. The kit according to claim 12, wherein the pain is back pain, or is pain associated with a burn injury, an inflammatory disorder, a ligament injury, a tendon injury, or the sciatic nerve, or is neuropathic pain, optionally wherein the neuropathic pain is facial pain, pain of the teeth, jaw, gum or of a limb.

~~55. A kit comprising (a) a pharmaceutical composition selected from the group consisting of (i) a composition comprising adipose tissue-derived secretions, (ii) a composition comprising an adipose tissue-derived cell suspension, and (iii) a combination of (i) and (ii); and (b) instructions for use of said kit in treatment of a condition selected from the group consisting of an inflammatory disorder, a ligament injury and a tendon injury, or alleviating pain associated with an inflammatory disorder, a ligament injury or a tendon injury, wherein said treatment comprises administration of said pharmaceutical composition to a site on a subject remote from the site afflicted by the condition.~~

~~56. A kit comprising (a) a pharmaceutical composition selected from the group consisting of (i) a composition comprising adipose tissue-derived secretions, (ii) a composition comprising an adipose tissue-derived cell suspension, and (iii) a combination of (i) and (ii); and (b) instructions for use of said kit in treatment of a joint disease or condition in a mammalian subject, wherein said treatment comprises administration of said pharmaceutical composition to a site on a subject remote from the joint afflicted by the joint disease or condition.~~

1457. The kit according to ~~any one of~~ claim 12~~s 54 to 56~~, wherein the adipose tissue-derived cell suspension (i) comprises adipocytes, ~~or~~ (ii)

~~58. The kit according to any one of claims 54 to 56, wherein the adipose tissue-derived cell suspension~~ is substantially free of adipocytes.

1559. The kit according to ~~any one of~~ claim~~s 54 to 56~~ 12, wherein the kit comprises one or more frozen compositions and optionally further comprises instructions for administration of said composition within 2 hours of thawing said frozen composition.

16. The kit according to claim 12, wherein the adipose tissue-derived cell secretions or the adipose tissue-derived cell suspension is (i) derived from adipose tissue allogeneic to the recipient subject or animal, or (ii) derived from the intended recipient subject or animal, or (iii) derived from adipose tissue xenogeneic to the recipient subject or animal.

17. The kit according to claim 12, wherein the adipose tissue-derived cell secretions is a preparation concentrated by between 2-fold and 20-fold.

18. The kit according to claim 12, wherein said adipose tissue-derived cell secretions comprises concentrated media from culture of an adipose tissue-derived cell suspension,

optionally wherein said adipose tissue-derived cell suspension (i) comprises adipocytes and adipose tissue-derived mesenchymal stem cells or (ii) is substantially free of adipocytes,

optionally wherein said media from culture of an adipose tissue-derived cell suspension is concentrated between 2-fold and 20-fold.

~~60. The kit according to any one of claims 54 to 56 wherein the kit comprises a composition according to claim 1.~~