WHAT IS CLAIMED IS:

1. A composition comprising STRO-1+ mesenchymal lineage precursor or stem cells, wherein said cells are modified to introduce an oncolytic virus.

2. A method of treating cancer in a subject, the method comprising administering a composition comprising STRO-1+ mesenchymal lineage precursor or stem cells, wherein said cells are modified to introduce an oncolytic virus.

3. A method of delivering an oncolytic virus into a cancer cell, the method comprising contacting a cancer cell with a STRO-1+ mesenchymal lineage precursor or stem cell that has been modified to introduce an oncolytic virus.

4. The method or composition according to any one of claims 1 to 3, wherein the mesenchymal lineage precursor or stem cells express one or more of the markers selected from the group consisting of α1, α2, α3, α4 and α5, αv, β1 and β3.

5. The method or composition according to any one of claims 1 to 4, wherein the oncolytic virus comprises a tumour specific promoter and/or a capsid protein that binds a tumour-specific cell surface molecule.

6. The method or composition according to claim 5, wherein the tumour specific promoter is a survivin promoter, COX-2 promoter, PSA promoter, CXCR4 promoter, STAT3 promoter, hTERT promoter, AFP promoter, CCKAR promoter, CEA promoter, erbB2 promoter, E2F1 promoter, HE4 promoter, LP promoter, MUC-1 promoter, TRP1 promoter, Tyr promoter.

7. The method or composition according to claims 5 or 6, wherein the capsid protein is a fibre, a penton or hexon protein.

8. The method or composition according to any one of claims 1 to 7, wherein the oncolytic virus comprises a tumour specific cell surface molecule for transductionally targeting a tumour cell.

9. The method or composition according to any one of claims 5 to 8, wherein the tumour specific cell surface molecule is selected from the group consisting of an integrin, an EGF receptor family member, a proteoglycan, a disialoganglioside, B7-H3, cancer antigen 125 (CA-125), epithelial cell adhesion molecule (EpCAM), vascular endothelial growth factor receptor 1 , vascular endothelial growth factor receptor 2, carcinoembryonic antigen (CEA), a tumour associated glycoprotein, cluster of differentiation 19 (CD19), CD20, CD22, CD30, CD33, CD40, CD44, CD52, CD74, CD152, mucin 1 (MUC1), a tumour necrosis factor receptor, an insulin-like growth factor receptor, folate receptor a, transmembrane glycoprotein NMB, a C-C chemokine receptor, prostate specific membrane antigen (PSMA), recepteur d'o gine nantais (RON) receptor, and cytotoxic T-lymphocyte antigen 4.

10. The method or composition according to any one of claims 1 to 9, wherein the oncolytic virus is a Respiratory syncytial virus (RSV), conditionally replicating adenovirus (CRAd), adenovirus, herpes simplex virus (HSV), Vaccinia virus; Lentivirus, Reovirus, Coxsackievirus, Seneca Valley Virus, Poliovirus, Measles virus, Newcastle disease virus or Vesicular stomatitis virus (VSV) and parvovirus.

11. The method or composition according to any one of claims 1 to 10, wherein the mesenchymal lineage precursor or stem cells express:

a connexin selected from the group consisting of Cx40, Cx43, Cx45, Cx32 and Cx37; and/or,

an integrin selected from the group consisting of α2, α3 and α5.

12. The method or composition according to any one of claims 1 to 11, wherein the mesenchymal lineage precursor or stem cells are modified to introduce an oncolytic virus that kills the cancer cell but does not substantially affect viability of the mesenchymal lineage precursor or stem cell.

13. The method or composition according to any one of claims 1 to 11, wherein the mesenchymal lineage precursor or stem cells are modified to introduce an oncolytic virus that does not kill the mesenchymal lineage precursor or stem cells before they can deliver the oncolytic virus to a cancer cell.

14. The method or composition according to any one of claims 1 to 13, wherein the oncolytic virus expresses a viral fusogenic membrane glycoprotein to mediate induction of mesenchymal precursor lineage or stem cell fusion to tumour cells.

15. The method of claim 14, wherein the viral fusogenic membrane glycoprotein is the gibbon-ape leukaemia virus (GLAV) envelope glycoprotein, measles virus protein F (MV-F) and measles virus protein H (MV-H).

16. The method or composition according to any one of claims 1 to 15, wherein the mesenchymal lineage precursor or stem cells are substantially STRO-$1^{bri}$.

17. The method or composition according to any one of claims 1 to 16, wherein the mesenchymal lineage precursor or stem cells express angiopoietin-1 (Ang1) in an amount of at least 0.1 $\mu g/10^6$ cells.

18. The method or composition according to any one of claims 1 to 16, wherein the mesenchymal lineage precursor or stem cells express Ang1 in an amount of at least 0.5 $\mu g/10^6$ cells.

19. The method or composition according to any one of claims 1 to 16, wherein the mesenchymal lineage precursor or stem cells express Ang1 in an amount of at least 1.0 $\mu g/10^6$ cells.

20. The method or composition according to any one of claims 1 to 19, wherein the mesenchymal lineage precursor or stem cells express vascular endothelial growth factor (VEGF) in an amount less than about 0.05 $\mu g/10^6$ cells.

21. The method or composition according to any one of claims 1 to 19, wherein the mesenchymal lineage precursor or stem cells express VEGF in an amount less than about 0.02 $\mu g/10^6$ cells.

22. The method or composition according to any one of claims 1 to 21, wherein the mesenchymal lineage precursor or stem cells express Ang1:VEGF at a ratio of at least about 2:1.

23. The method or composition according to any one of claims 1 to 21, wherein the mesenchymal lineage precursor or stem cells express Ang1:VEGF at a ratio of at least about 10:1.

24. The method or composition according to any one of claims 1 to 21, wherein the mesenchymal lineage precursor express Ang1:VEGF at a ratio of at least about 20:1.

25. The method or composition according to any one of claims 1 to 21, wherein the mesenchymal lineage precursor or stem cells express Ang1:VEGF at a ratio of at least about 30:1.

26. The method or composition according to any one of claims 1 to 21, wherein the mesenchymal lineage precursor express Ang1:VEGF at a ratio of at least about 50:1.

27. The method or composition according to any one of claims 1 to 26, wherein the mesenchymal lineage precursor are not genetically modified to express Ang1 or VEGF.

28. The method or composition according to any one of claims 1 to 27, wherein the mesenchymal lineage precursor or stem cells are derived from pluripotent cells.

29. The method or composition of claim 28, wherein the pluripotent cells are induced pluripotent stem (iPS) cells.

30. The method or composition according to any one of claims 1 to 29, wherein the method or composition comprises mesenchymal lineage precursor or stem cells which express STRO-1 and one or two or more of the markers selected from the group consisting of α1, α2, α3, α4 and α5, αv, β1 and β3.

31. The method of claim 3, wherein the contacting occurs under conditions permitting the mesenchymal lineage precursor or stem cell to form a gap junction with the cancer cell, whereby the oncolytic virus is delivered to the cancer cell by traversing the gap junction.

32. The method of claim 31, wherein the gap junction is formed by Cx40 or Cx43.

33. The method of claim 31, wherein the gap junction is formed by Cx43.

34. The method according to any one of claims 2 or 4 to 32, wherein the delivery of oncolytic virus is via a mechanism other than Cx43.

35. The method according to any one of claims 3 to 34, wherein the cancer cell is a lung cancer, pancreatic cancer, colorectal cancer, liver cancer, cervical cancer, prostate cancer, osteosarcoma, breast cancer or melanoma cell.

36. The method according to any one of claims 3 to 34, wherein the cancer cell is a syncytial cancer cell.

37. The method or composition according to any one of claims 3 to 36, wherein the oncolytic virus is modified to insert a nucleotide sequence that is complimentary to an oligonucleotide that is expressed by the mesenchymal lineage precursor or stem cell and not expressed by the cancer cell.

38. The method or composition of claim 37, wherein the oligonucleotide is a miRNA.

39. A method of treating cancer in a subject, the method comprising administering a composition according to any one of claims 1 or 4 to 30.

40. The method of claim 39, wherein the mesenchymal lineage precursor or stem cells express a connexin that is also expressed by a cancer cell comprising the subject's cancer.

41. The method of claim 40, wherein the connexin is Cx40 or Cx43.

42. The method of claim 41, wherein a cancer cell comprising the subject's cancer expresses Cx43.

43. The method according to any one of claims 2, 4 to 30 or 39 to 42, wherein the cancer is selected from the group consisting of lung cancer, pancreatic cancer, colorectal cancer, liver cancer, cervical cancer, prostate cancer, breast cancer, osteosarcoma and melanoma.

44. The method or composition according to any one of claims 1 to 43, wherein the modified mesenchymal lineage precursor or stem cell has been treated to effect modification of cell surface glycans on the mesenchymal lineage precursor or stem cell.

45. The method or composition according to claim 44, wherein the treatment involves exposure of the mesenchymal lineage precursor or stem cell to a glycosylstrasferase under conditions which result in modification of cell-surface glycans on the mesenchymal lineage precursor or stem cell.

46. The method or composition according to claim 45 wherein the glycosyltransferase is a fucosyltransferase, a galactosyltransferase, or a sialyltransferase.

47. The method or composition according to claim 46 wherein the fucosyltransferase is an alpha 1,3 fucosyltransferase such as an alpha 1,3 fucosyltransferase III, alpha 1,3 fucosyltransferase IV, an alpha 1,3 fucosyltransferase VI, an alpha 1,3 fucosyltransferase VII or an alpha 1,3 fucosyltransferase IX.

48. The method or composition according to any one of claims 44-47 wherein the mesenchymal lineage precursor or stem cell is exposed to an exogenous glycosyltranferase and wherein exposure to the glycosyltransferase results in enhanced retention of the cell at a site of inflammation *in vivo*.

49. The method or composition according to any one of claims 44-48 wherein the mesenchymal lineage precursor or stem cell has been modified to introduce a nucleic acid encoding a glycosyltransferase and wherein expression of the glycosyltransferase in the cell results in enhanced retention of the cell at a site of inflammation *in vivo*.

**CLAIMS**

1. Use of a population of culture expanded mesenchymal lineage precursor or stem cells (MLPSC)s comprising an oncolytic virus in the manufacture of a medicament for treating a cancer in a subject, in which the MLPSCs have been culture expanded from a population of STRO-1+ MLPSCs.

2. Use according to Claim 1, in which the mesenchymal lineage precursor or stem cells express one or more of the markers selected from the group consisting of α1, α2, α3, α4 and α5, αv, β1 and β3.

3. Use according to Claim 1 or 2, in which the oncolytic virus comprises a tumour specific promoter and/or a capsid protein that binds a tumour-specific cell surface molecule.

4. Use according to Claim 3, in which the tumour specific promoter is a survivin promoter, COX-2 promoter, PSA promoter, CXCR4 promoter, STAT3 promoter, hTERT promoter, AFP promoter, CCKAR promoter, CEA promoter, erbB2 promoter, E2F1 promoter, HE4 promoter, LP promoter, MUC-1 promoter, TRP1 promoter, Tyr promoter.

5. Use according to any preceding claim, in which the oncolytic virus comprises a tumour specific cell surface molecule for transductionally targeting a tumour cell.

6. Use according to Claim 5, in which the tumour specific cell surface molecule is selected from the group consisting of an integrin, an EGF receptor family member, a proteoglycan, a disialoganglioside, B7-H3, cancer antigen 125 (CA-125), epithelial cell adhesion molecule (EpCAM), vascular endothelial growth factor receptor 1 , vascular endothelial growth factor receptor 2, carcinoembryonic antigen (CEA), a tumour associated glycoprotein, cluster of differentiation 19 (CD19), CD20, CD22, CD30, CD33, CD40, CD44, CD52, CD74, CD152, mucin 1 (MUC1), a tumour necrosis factor receptor, an insulin-like growth factor receptor, folate receptor a, transmembrane glycoprotein NMB, a C-C chemokine receptor, prostate specific membrane antigen (PSMA), recepteur d'origine nantais (RON) receptor, and cytotoxic T-lymphocyte antigen 4.

7. Use according to any preceding claim, in which the oncolytic virus is a Respiratory syncytial virus (RSV), conditionally replicating adenovirus (CRAd), adenovirus, herpes simplex virus (HSV), Vaccinia virus; Lentivirus, Reovirus, Coxsackievirus, Seneca Valley

Virus, Poliovirus, Measles virus, Newcastle disease virus or Vesicular stomatitis virus (VSV) and parvovirus.

8. Use according to any preceding claim, in which the mesenchymal lineage precursor or stem cells are modified to introduce an oncolytic virus that does not kill the mesenchymal lineage precursor or stem cells before they can deliver the oncolytic virus to a cancer cell.

9. Use according to any preceding claim, in which the oncolytic virus expresses a viral fusogenic membrane glycoprotein to mediate induction of mesenchymal precursor lineage or stem cell fusion to tumour cells.

10. Use according to any preceding claim, in which the mesenchymal lineage precursor or stem cells are substantially STRO-$1^{bri}$.

11. Use according to any preceding claim, in which the mesenchymal lineage precursor or stem cells express angiopoietin-1 (Ang1) in an amount of at least 0.1 $\mu g/10^6$ cells.

12. Use according to any preceding claim, in which the mesenchymal lineage precursor or stem cells express vascular endothelial growth factor (VEGF) in an amount less than about 0.05 $\mu g/10^6$ cells.

13. Use according to any preceding claim, in which the mesenchymal lineage precursor or stem cells express Ang1:VEGF at a ratio of at least about 2:1.

14. Use according to any preceding claim, in which the mesenchymal lineage precursor or stem cells are derived from induced pluripotent stem (iPS) cells.

15. Use according to any preceding claim, in which the population comprises mesenchymal lineage precursor or stem cells which express STRO-1 and one or two or more of the markers selected from the group consisting of α1, α2, α3, α4 and α5, αv, β1 and β3.

16. Use according to any preceding claim, in which the mesenchymal lineage precursor or stem cells form gap junctions with cancer cells, whereby the oncolytic virus is delivered to cancer cells by traversing the gap junctions.

17. Use according to any preceding claim, in which the cancer is a lung cancer, pancreatic cancer, colorectal cancer, liver cancer, cervical cancer, prostate cancer, osteosarcoma, breast cancer or melanoma cell.

18. Use according to any preceding claim, in which the cancer is a syncytial cancer.

19. Use according to any preceding claim, in which the oncolytic virus is modified to insert a nucleotide sequence that is complimentary to an oligonucleotide that is expressed by the mesenchymal lineage precursor or stem cell and not expressed by the cancer cell.

20. Use according to Claim 19, in which the oligonucleotide is a miRNA.