CLAIMS

1. Use of a composition comprising a population of human allogeneic mesenchymal lineage precursor or stem cells (MLPSCs) enriched for STRO-1+ or TNAP+ cells in the manufacture of a medicament for treatment of lower back pain, in which the lower back pain is associated with an intervertebral disc that has a disc height loss of <30% compared to that of an adjacent healthy disc in the subject; and in which the medicament is for administration into the nucleus pulposus or the annulus fibrosus of the affected intervertebral disc.

2. Use according to Claim 1, in which the lower back pain is non-radicular in origin.

3. Use according to Claim 1 or 2, in which the lower back pain is associated with an intervertebral disc herniation up to a 3mm protrusion.

4. Use according to Claim 1, 2 or 3, in which the lower back pain is associated with nerve ingrowth into an intervertebral disc.

5. Use according to any preceding claim, in which the lower back pain is associated with inflammation in an intervertebral disc.

6. Use according to Claim 4 or 5, in which the nerve ingrowth or inflammation is in the intervertebral disc space, or the nucleus pulposus, or the annulus fibrosus of the intervertebral disc.

7. Use according to any preceding claim, in which the MLPSCs release TGFβ1 when cultured in an amount of at least 2800 pg/10^6 cells, or at least 2810 pg/10^6 cells, or at least 2820 pg/10^6 cells, or at least 2830 pg/10^6 cells, or at least 2840 pg/10^6 cells, or at least 2850 pg/10^6 cells, or at least 2860 pg/10^6 cells, or at least 2870 pg/10^6 cells, or at least 2880 pg/10^6 cells, or at least 2890 pg/10^6 cells, or at least 2900 pg/10^6 cells, or at least 2910 pg/10^6 cells, or at least 2920 pg/10^6 cells, or at least 2930 pg/10^6 cell, or at least 2940 pg/10^6 cells, or at least 2950 pg/10^6 cells, or at least 2960 pg/10^6 cells, or at least 2970 pg/10^6 cells, or at least 2980 pg/10^6 cells, or at least 2990 pg/10^6 cells, or at least 3000 pg/10^6 cells.

8. Use according to any of Claims 1 to 6, in which the MLPSCs release TGFβ1 when cultured in an amount of at least 400 pg/ml, or at least 405 pg/ml, or at least 410 pg/ml, or at least 415 pg/ml, or at least 420 pg/ml, or at least 425 pg/ml, or at least 430 pg/ml, or at least 435 pg/ml, or at least 440 pg/ml, or at least 445 pg/ml, or at least 450 pg/ml, or at least 455

pg/ml, or at least 460 pg/ml, or at least 465 pg/ml, or at least 470 pg/ml, or at least 475 pg/, or at least 480 pg/ml, or at least 485 pg/ml, or at least 490 pg/ml, or at least 495 pg/ml, or at least 500 pg/ml.

9. Use according to Claim 7 or 8, in which MLPSCs release TGFβ1 in an amount sufficient to enhance Sema3A expression in the annulus fibrosus of the intervertebral disc space.

10. Use according to any preceding claim, in which the mesenchymal lineage precursor or stem cells are isolated by immunoselection.

11. Use according to any of Claims 1 to 9, in which the immunoselected cells are culture expanded prior to administration.

12. Use according to any of Claims 1 to 9, in which the mesenchymal lineage precursor or stem cells are culture expanded mesenchymal stem cells.

13. Use according to any preceding claim, in which the composition comprises a dose of between about 1 x 10^6 cells to about 20 x 10^6 cells.

14. Use according to any preceding claim, in which the composition comprises a dose of about 6 x 10^6 cells.

15. Use according to any of Claims 1 to 13, in which the composition comprises a dose of about 18 x 10^6 cells.

16. Use according to any preceding claim, in which the medicament is to be administered as a single dose.

17. Use according to any preceding claim, in which administration of the MLSPCs results in at least a 50% reduction in pain as determined by the visual analog scale (VAS) for at least 1 month, or at least 6 months, or at least 12 months, or at least 18 months, or at least 24 months after administration.

18. Use according to any preceding claim, in which administration of the MLSPCs results in a reduction of at least 15 points as determined by the Oswestry Disability Index (ODI) for at least 1 month, or at least 6 months, or at least 12 months, or at least 18 months, or at least 24 months after administration.