CLAIMS

1. Use of a cell population enriched for STRO-1^+ multipotential cells or progeny cells thereof in the manufacture of a medicament for treating low back pain, in which at least 0.1% of the cells in the cell population are STRO-1^+ and $TNAP^+$ in which:

(i) the progeny is obtainable by expansion of said STRO-1^+-enriched cell population in culture;

(ii) the progeny cells have the capacity to differentiate into different cell types; and

(iii) the medicament is suitable for intervertebral administration.

2. Use according to Claim 1, in which the intervertebral administration comprises intradiscal administration, administration into the nucleus pulposus, or administration into the annulus fibrosus.

3. Use according to Claim 1, in which the medicament is for reconstituting the nucleus pulposus of the intervertebral disc.

4. Use according to Claim 1, 2 or 3, in which the STRO-1^+ multipotential cells are also positive for TNAP+ (STRO-3), VCAM-1+, THY-1+, STRO-2+, CD45+, CD146+, 3G5+ or any combination thereof.

5. Use according to any preceding claim, in which the STRO-1^+ multipotential cells are derived from an allogeneic source.

6. Use according to any preceding claim, in which the medicament further comprises glycosaminoglycan (GAG).

7. Use according to Claim 6, in which the GAG is selected from the group consisting of hyaluronic acid (HA), chondroitan sulfate, dermatan sulfate, keratan sulfate, heparin, heparin sulfate, and galactosaminoglycuronglycan sulfate (GGGS).

8. Use according to any preceding claim, in which the low back pain is associated with degeneration of an intervertebral disc.

9. Use according to Claim 8, in which the degeneration of the intervertebral disc is age-related or associated with spondylolysis.