CLAIMS

1. A method for determining the potency of mesenchymal lineage precursor or stem cells comprising:

(i) obtaining a population comprising mesenchymal lineage precursor or stem cells;

(ii) culturing the cells in a culture medium; and

(iii) determining the amount of TGFβ1 released by the cells into the culture medium, wherein an amount of at least about 2800 pg/10^6 cells TGFβ1 is indicative of biological activity or therapeutic efficacy.

2. The method of claim 1, wherein the population is enriched for mesenchymal lineage precursor or stem cells.

3. The method of claim 1 or 2, wherein the mesenchymal lineage precursor or stem cells are human mesenchymal lineage precursor or stem cells.

4. The method of any one of claims 1 to 3, wherein the biological activity comprises the cells' ability to stimulate collagen production in human annulus fibrous cells *in vitro*.

5. The method of any one of claims 1 to 4, wherein the therapeutic efficacy comprises the therapeutic efficacy in treatment of degenerative disc disease.

6. The method of any one of claims 1 to 5, wherein the method comprises seeding the cells in a culture vessel at a density of about 50,000 viable cells/cm^2.

7. The method of any one of claims 1 to 6, wherein the method comprises culturing the cells in chondrogenic basal medium supplemented with 0.5% bovine serum albumin.

8. The method of any one of claims 1 to 7, wherein the cells are cultured for at least 68 to 76 hours.

9. The method of any one of claims 1 to 8, wherein the method comprises collecting a sample of the culture medium in which the cells were cultured.

10. The method of claim 9, wherein the method comprises activating latent TGFβ1 in the culture medium prior to determining the amount of TGFβ1 in the culture medium.

11. The method of claim 10, wherein activating latent TGFβ1 comprises adding an acid to the culture medium sample to lower the pH of the culture medium.

12. The method of claim 11, wherein the method comprises concentrating the culture medium sample prior to lowering the pH.

13. The method of claim 11 or 12, wherein, following addition of the acid, the culture medium is neutralised to a pH of 7.2 to 7.6.

14. The method of any one of claims 1 to 13, wherein the method comprises determining the amount of TGFβ1 in the culture medium by enzyme-linked immunosorbent assay (ELISA).

15. An isolated population of cells comprising mesenchymal lineage precursor or stem cells selected for use in treatment, wherein the population of cells releases 2800 pg/10^6 cells TGFβ1 when assayed in the method of any one of claims 1 to 14.

16. An isolated population of cells comprising mesenchymal lineage precursor or stem cells, wherein the population of cells has been selected for use in treatment by determining release of TGFβ1 under culture conditions.

17. The isolated population of claim 15 or claim 16, wherein the mesenchymal lineage precursor or stem cells comprise at least 5% of the cell population.

18. A composition comprising the isolated population of any one of claims 15 to 17, and a cryopreservative.

19. A composition comprising the isolated population of any one of claims 15 to 17, wherein the composition comprises hyaluronan.

20. A method of treating a subject with degenerative disc disease, the method comprising administering a composition comprising the isolated population of cells of claims 16 or 17 to the subject.