CLAIMS

1. An *in vitro* method for the production of mesenchymal stromal cells (MSC) preparation, the method comprising: pooling bone marrow samples obtained from at least two genetically distinct donors to obtain a sample cell-pool, and thereafter isolating mesenchymal stromal cells from said sample cell-pool.

2. The method according to claim 1, comprising the steps of:
   (a) Providing a number of bone marrow samples obtained from at least two genetically distinct donors,
   (b) Pooling said bone marrow samples to obtain a sample cell-pool,
   (c) Optionally, culturing said sample cell-pool, and
   (d) Isolating from said sample cell-pool obtained in step (b) said mesenchymal stromal cells.

3. The method of claim 1 or 2, wherein said bone marrow sample is a mammalian bone marrow sample and said mesenchymal stromal cell is a mammalian mesenchymal stromal cell; preferably wherein said bone marrow sample is a human bone marrow sample and said mesenchymal stromal cell is a human mesenchymal stromal cell.

4. The method according to any of claims 1 to 3, wherein said bone marrow samples are bone marrow mononuclear cell samples.

5. The method according to any of claims 1 to 4, wherein said bone marrow samples are obtained from at least three, more preferably at least four, more preferably at least five, more preferably at least six, more preferably at least seven, and most preferably at least eight genetically distinct donors.

6. The method according to any of claims 1 to 5, further comprising a step of either storing said isolated mesenchymal stromal cells, or expanding said isolated mesenchymal stromal cells.

7. An *in vitro* method for the production of clinical-grade mesenchymal stromal cell (MSC) preparations,the method comprising:

i) pooling bone marrow samples obtained from at least two genetically distinct donors to obtain a sample cell-pool,

ii) thereafter isolating mesenchymal stromal cells from said sample cell-pool, and

iii) expanding the isolated MSCs until receiving an amount of MSC applicable in the clinic.

8. The method according to claim 7, wherein the MSCs are expanded immediately after isolating the MSCs, or wherein the isolated MSCs are expanded after thawing a stored cryopreserved aliquot of isolated MSC.

9. A cellular composition comprising bone marrow samples from at least two genetically distinct bone marrow donors, wherein each of said bone marrow samples comprises at least one non-adherent cell fraction and at least one adherent cell fraction.

10. The cellular composition according to claim 9 wherein each of said the bone marrow samples comprises a bone marrow mononuclear cell fraction.

11. The cellular composition according to claim 9 or 10, for use in medicine.

12. The cellular composition for use according to claim 11, for use in the treatment of autoimmune diseases such as multiple selerosis, Type 1 diabetes, rheumatoid arthritis, uveitis, autoimmune thyroid disease, inflammatory bowel disease (IBD), scleroderma, Graves' Disease, lupus, Crohn's disease, autoimmune lymphoproliferative disease (ALPS), demyelinating disease, autoimmune encephalomyelitis, autoimmune gastritis (AIG), autoimmune glomerular diseases, and preferably graft-versus-host disease (GvHD).