We claim:

1. A method of preparing a Master Cell Bank composition comprising Mesenchymal stem cells, Fetal Bovine Serum (FBS) and Dimethyl Sulphoxide (DMSO), said method comprising acts of:

   a. obtaining and diluting bone marrow ~~cells~~ in culture media comprising Dulbecco's Modified Eagle Medium-KnockOut [DMEM-KO], Fetal Bovine Serum [FBS], Glutamine and Pen-Strep and centrifuging the diluted bone marrow ~~cells~~ to obtain a ~~first~~ pellet and re-diluting the ~~first~~ pellet with the culture media;

   b. adding density gradient solution to the re-diluted pellet and centrifuging to obtain a buffy layer at interface;

   c. to the buffy layer, ~~re~~-adding equal volume of the culture media ~~to the buffy layer~~ and centrifuging to obtain a ~~second~~ pellet comprising Mononuclear cells (MNC), followed by suspending the ~~second~~ pellet in the culture media; seeding 40 -50 million Mononuclear cells (MNC) and ~~incubating~~ culturing with media change to achieve ~~about~~ 80% to 85% confluency;

   d. aspirating the culture media and washing the confluent cells with Dulbecco's Phosphate Buffered Saline (DPBS), thereafter treating the cells with 0.25% trypsin/EDTA to obtain trypsinized cells ~~and re-incubating the treated cells~~;

   e. neutralizing the ~~re-incubated~~ trypsinized cells with neutralization media and ~~re~~-centrifuging the cells to obtain a ~~third~~ pellet comprising Mesenchymal Stem Cells (MSC), followed by suspending the ~~third~~ pellet in the culture media;

   f. seeding the Mesenchymal Stem Cells at a seeding density of 6666 cells/cm^2 and culturing with media change to achieve 80% to 85% confluency;

   g. harvesting the cells of step f) by aspirating the culture media, washing the confluent cells with DPBS, trypsinizing the cells, neutralizing the trypsinized cells with Neutralization media and centrifuging to obtain pellet comprising Mesenchymal Stem Cells; and

   ~~e.~~h. suspending the Mesenchymal Stem Cells in ~~and freezing the cells with~~ freezing media comprising ~~about~~ 85% to 95% FBS and ~~about~~ 5% to 15% DMSO~~; and~~

   ~~trypsinization of the frozen cells and resuspending the trypsinized cells in the freezing media~~ to obtain the Master Cell Bank composition.

2. The method as claimed in claim 1, wherein the ~~incubation~~ culturing ~~-~~ is carried out in a 5% CO_2 incubator at a temperature of ~~about~~ 37°C.~~;~~

3. The method as claimed in claim 1, wherein the confluency is obtained by replenishing the culture media after ~~about~~ 7 days to 8 days.~~;~~

4. The method as claimed in claim 1, wherein the neutralization media comprise~~sing~~ Dulbecco's Modified Eagle Medium-KnockOut [DMEM KO], ~~about~~ 10% Fetal Bovine Serum [FBS] and ~~about~~ 0.5% Pen-Strep.~~;~~

5. The method as claimed in claim 1, wherein ~~and~~ the ~~re-incubating is done~~ cells in step d) are treated with 0.25 % Trypsin/EDTA in a 37°C incubator for ~~about~~ 2 minutes to 3 minutes.

~~3.~~6. A method of preparing a Working Cell Bank composition comprising Mesenchymal stem cells, Fetal Bovine Serum (FBS) and Dimethyl Sulphoxide (DMSO), said method comprising acts of:

a. preparing ~~a~~ Master Cell Bank compositions according to claim 1 from bone marrow cells obtained from different donors, wherein each Master Cell Bank composition is obtained from bone marrow cells of a single donor ;
b. obtaining cell pellet from the Master Cell Bank composition, followed by suspending the cell pellet from each Master Cell Bank composition in culture media and pooling the cells from each of the Master Cell Bank compositions in equal proportion ~~-~~to obtain ~~an aggregate of~~ pooled cells;
c. culturing the pooled ~~aggregate of~~ cells with the culture media~~,~~ ~~thereafter incubating~~ to achieve ~~about~~ 80% to 85% confluency and re-performing step (d) of claim 1;
d. neutralizing the ~~re-incubated~~ trypsinized cells with the culture media, followed by centrifuging the cells to obtain a ~~second~~ pellet and suspending the ~~second~~ pellet in the culture media to obtain cultured cells; and

e. re-centrifuging the cultured cells and freezing the cell pellet with freezing media comprising ~~about~~ 85 to 95% FBS and ~~about~~ 5 to 15% DMSO to obtain the Working Cell Bank composition.

~~4.~~7. The method as claimed in claim ~~3~~6, wherein the Master Cell Bank composition comprises Mesenchymal stem cells ranging from ~~about~~ 1 million cells to 3 million cells per ml, Fetal Bovine Serum (FBS) ranging from ~~about~~ 85% to 95% and Dimethyl Sulphoxide (DMSO) ranging from ~~about~~ 5% to 15%.

~~5.~~8. The method as claimed in claim ~~3~~6, wherein the obtaining of the cell pellet is by thawing stem cells, neutralizing freezing media with complete media and centrifuging at ~~about~~ 1200 rpm to 1500 rpm for time duration of ~~about~~ 10 to 20 minutes to obtain cell pellet.

~~6.~~9. A method of preparing a composition comprising Mesenchymal Stem Cells, Plasmalyte A, Human Serum Albumin (HSA), Dimethyl Sulphoxide (DMSO), optionally along with pharmaceutically acceptable additives, said method comprising acts of:

a. preparing a Working Cell Bank composition by pooling Mesenchymal Stem Cells from multiple Master Cell Bank compositions, according to claim ~~3~~6,
b. obtaining pooled Mesenchymal Stem Cells from the composition, followed by culturing the cells with culture media ~~and incubating~~ to achieve ~~about~~ 80% to 85% confluency, and re-performing step (d) of claim 1;
c. neutralizing the trypsinized ~~re-incubated~~ cells with the culture media and thereafter centrifuging the cells to obtain a cell pellet; washing the cell pellet in DPBS followed by re-centrifuging to obtain a ~~second~~ cell pellet;
d. suspending the ~~second~~ cell pellet in the complete media, ~~and~~ culturing the cells, ~~followed by incubating the cultured cells and adding~~ in the complete media ~~to the incubated cells~~ to achieve ~~about~~ 80% to 85% confluency;
e. ~~trypsinization~~ harvesting of the confluent cells ~~and~~ by ~~re~~-washing the cells with the DPBS; ~~followed by~~ treating the ~~re~~-washed cells with 0.25% trypsin and ~~incubating the treated cells followed by~~ neutralizing the ~~incubated~~ trypsinized cells with the complete media;

f. centrifuging the neutralized cells suspension and washing the centrifuged cells with the DPBS followed by re-centrifuging to obtain a ~~third~~ pellet; and

g. freezing the ~~third~~ pellet with the Plasmalyte-A, the DMSO and the Human Serum Albumin; and optionally adding pharmaceutically acceptable additive to obtain the composition.

~~7.~~10. The method as claimed in claim ~~6~~9, wherein the Working Cell Bank composition ~~having~~ has Mesenchymal Stem Cells ranging from ~~about~~ 1 million cells to 3 million cells per ml, Fetal Bovine Serum (FBS) ranging from ~~about~~ 85% to 95% and Dimethyl Sulphoxide (DMSO) ranging from ~~about~~ 5% to 15%.

~~8.~~11. The method as claimed in claims 1, ~~3~~6 and ~~6~~9, wherein the centrifuging is carried out at ~~about~~ 1200 rpm to 1500 rpm, at temperature ranging from ~~about~~ 20°C to 25°C, for time duration ranging from ~~about~~ 10 minutes to 20 minutes.

~~9.~~12. The method as claimed in claims ~~3~~6 and ~~6~~9, wherein the ~~incubating~~ culturing is done in a 5% CO_2 incubator at a temperature of ~~about~~ 37°C; and wherein the confluency is obtained by replenishing the culture media after ~~about~~ 7 days to 8 days~~; and wherein the re-incubating is done in a 37°C incubator for about 2 minutes to 3 minutes~~.

~~10.~~13. The method as claimed in claims ~~1, 3~~6 and ~~6~~9, wherein the culture media comprises Dulbecco's Modified Eagle Medium-KnockOut [DMEM-KO] at a concentration ranging from ~~about~~ 85% to 95%, Fetal Bovine Serum [FBS] at a concentration ranging from ~~about~~ 5% to 15%, Glutamine at a concentration ranging from ~~about~~ 0.5% to 2%; Pen-Strep at a concentration ranging from ~~about~~ 0.1% to 1%; and basic Fibroblast Growth Factor [bFGF] at a concentration ranging from ~~about~~ 0.5 ng/ml to 5 ng/ml.

~~11.~~14. A composition comprising pooled Mesenchymal Stem Cells, Human Serum Albumin (HSA), Plasmalyte A and Dimethyl Sulphoxide (DMSO), optionally along with pharmaceutically acceptable additives.

~~12.~~15. A Master Cell ~~or Working Cell Bank~~ Bank Composition comprising Mesenchymal Stem cells, having concentration ranging from 1 million to 3 million cells per ml, Fetal Bovine Serum (FBS) having concentration ranging from 85% to 95% and Dimethyl Sulphoxide (DMSO) having concentration ranging from 5% to 15%.

16. A Working Cell Bank Composition comprising pooled Mesenchymal Stem Cells, Fetal Bovine Serum (FBS) and Dimethyl Sulphoxide (DMSO).

~~13.~~17. The composition as claimed in claim 1~~1~~4, wherein the Mesenchymal Stem Cells ~~having~~ have concentration ranging from ~~about~~ 25 million to 200 million cells per 15ml; the Human Serum Albumin ~~having~~ has concentration ranging from ~~about~~ 1% to 6%; the Plasmalyte A ~~having~~ has concentration ranging from ~~about~~ 80% to 90%; and the Dimethyl Sulph~~f~~oxide has ~~having~~ concentration ranging from ~~about~~ 5% to 10% in each cryo-preserved vial.

~~14.~~18. The composition as claimed in claim 1~~2~~6, wherein the Mesenchymal Stem Cells ~~having~~ have concentration ranging from ~~about~~ 1 million to 3 million cells per ml; the Fetal Bovine Serum ~~having~~ has concentration ranging from ~~about~~ 85% to 95%~~.~~; and the Dimethyl Sulph~~f~~oxide has ~~having~~ concentration ranging from ~~about~~ 5% to ~~about~~ 15% in each cryo-preserved vial.

~~15.~~

19. The composition as claimed in claim 1~~1~~4 ~~and the method as claimed in claim 6~~, wherein the pharmaceutically acceptable additive is Plasmalyte A.

20. The method as claimed in claim 9, wherein the pharmaceutically acceptable additive is Plasmalyte A.

~~16.~~21. A Kit comprising compositions of claims 1~~1~~4, 15 or 1~~2~~6, and an instructions manual.

22. The method as claimed in claim 1, wherein the culture media comprises Dulbecco's Modified Eagle Medium-KnockOut [DMEM-KO] at a concentration ranging from 85% to 95%, Fetal Bovine Serum [FBS] at a concentration ranging from 5% to 15%,

Glutamine at a concentration ranging from 0.5% to 2%; and Pen-Strep at a concentration ranging from 0.1% to 1%.