CLAIMS

1. Isolated cell population from adipose tissue characterised in that the cells of said cell population:

a) do not express markers specific for antigen-presenting cells (APC), wherein the markers specific for APC are CD11b, CD11c, CD14, CD45 and HLAII,

b) do not express indolamine 2,3-dioxygenase (IDO) constitutively,

c) express IDO upon stimulation with interferon-gamma (IFN-γ) and,

d) present capacity to be differentiated into at least two cell lineages,

for use in preventing, treating, or ameliorating one or more symptoms associated with Inflammatory Bowel Disease (IBD) in a subject suffering from IBD.

2. A pharmaceutical composition comprising an isolated cell population from adipose tissue characterised in that the cells of said cell population:

a) do not express markers specific for antigen-presenting cells (APC), wherein the markers specific for APC are CD11b, CD11c, CD14, CD45 and HLAII,

b) do not express indolamine 2,3-dioxygenase (IDO) constitutively,

c) express IDO upon stimulation with interferon-gamma (IFN-γ) and,

d) present capacity to be differentiated into at least two cell lineages,

and an acceptable pharmaceutically carrier for use in preventing, treating, or ameliorating one or more symptoms associated with Inflammatory Bowel Disease (IBD) in a subject suffering from IBD.

3. A kit comprising an isolated cell population from adipose tissue characterised in that the cells of said cell population:

a) do not express markers specific for antigen-presenting cells (APC), wherein the markers specific for APC are CD11b, CD11c, CD14, CD45 and HLAII,

b) do not express indolamine 2,3-dioxygenase (IDO) constitutively,

c) express IDO upon stimulation with interferon-gamma (IFN-γ) and,

d) present capacity to be differentiated into at least two cell lineages,

for use in preventing, treating, or ameliorating one or more symptoms associated with Inflammatory Bowel Disease (IBD) in a subject suffering from IBD.

4. Use of an isolated cell population from adipose tissue characterised in that the cells of said cell population:

a) do not express markers specific for antigen-presenting cells (APC), wherein the markers specific for APC are CD11b, CD11c, CD14, CD45 and HLAII,

b) do not express indolamine 2,3-dioxygenase (IDO) constitutively,

c) express IDO upon stimulation with interferon-gamma (IFN-γ) and,

d) present capacity to be differentiated into at least two cell lineages,

for the preparation of a medicament for preventing, treating, or ameliorating one or more symptoms associated with Inflammatory Bowel Disease (IBD) in a subject suffering from IBD.

5. Isolated cell population for use according to claim 1, pharmaceutical composition for use according to claim 2, kit for use according to claim 3 or use according to claim 4 characterised in that said cell population is negative for the following cell surface markers: CD11b, CD11c, CD14, CD31, CD34, CD45, CD133 and HLAII.

6. Isolated cell population for use according to claim 1, pharmaceutical composition for use according to claim 2, kit for use according to claim 3 or use according to claim 4 characterised in that said cell population is positive for at least one and preferably all the following cell surface markers: CD9, CD44, CD54, CD90 and CD105.

7. Isolated cell population for use according to claim 1, pharmaceutical composition for use according to claim 2, kit for use according to claim 3 or use according to claim 4 characterised in that said cell population is capable of being expanded *ex vivo*.

8. Isolated cell population for use according to claim 1, pharmaceutical composition for use according to claim 2, kit for use according to claim 3 or use according to claim 4 characterised in that said cell population expresses, at least, one antigenic polypeptide.