CLAIMS:

1. Use of a population of cells enriched for STRO-1$^+$ cells in the manufacture of a medicament for ~~A method of~~ reducing weight of a subject~~, the method comprising administering to the subject a population of cells enriched for STRO-1$^+$ cells and/or progeny thereof and/or soluble factors derived therefrom~~.

2. Use of a population of cells enriched for STRO-1$^+$ cells in the manufacture of a medicament for ~~A method of~~ treating or preventing excessive weight or obesity in a subject~~, the method comprising administering to the subject a population of cells enriched for STRO-1$^+$ cells and/or progeny thereof and/or soluble factors derived therefrom~~.

3. The ~~method~~ use of claim 1 or 2, wherein administration of the population and/or the progeny and/or the soluble factors reduces body weight by at least about 3% about 4 weeks after the administration.

4. Use of a population of cells enriched for STRO-1$^+$ cells an in the manufacture of a medicament for ~~A method of~~ treating or preventing non-diabetic metabolic syndrome or a symptom thereof in a subject~~, the method comprising administering to the subject a population of cells enriched for STRO-1$^+$ cells and/or progeny thereof and/or soluble factors derived therefrom~~.

5. Use of a population of cells enriched for STRO-1$^+$ cells in the manufacture of a medicament for reducing elevated triglycerides, reducing elevated low density lipoproteins, increasing reduced high density lipoproteins, increasing reduced lipoprotein index and/or obesity in a subject suffering from metabolic disorder.

~~5~~6. The ~~method~~ use of claim 4, wherein the symptom of metabolic syndrome is selected from the group consisting of elevated triglycerides, elevated low density lipoproteins, reduced high density lipoproteins, reduced lipoprotein index, elevated fasting glucose levels, elevated fasting insulin, reduced glucose clearance following feeding, insulin resistance, impaired glucose tolerance, obesity and combinations thereof.

~~67~~. The ~~method~~ use of any one of claims 4 to~~r~~ ~~56~~, wherein administration of the population and/or the progeny and/or the soluble factors results in one or more of the following:

(i) reduced triglycerides;

(ii) reduced low density lipoproteins;

(iii) increased high density lipoproteins;

(iv) increased lipoprotein index;

(v) reduced fasting glucose levels;

(vi) increased insulin secretion by the pancreas;

(vii) increased glucose clearance following feeding;

(viii) reduced insulin resistance; and

(ix) reduced body weight.

~~78~~. The ~~method~~ use of any one of claims 1 to ~~76~~ comprising ~~administering~~ using a population of cells enriched for STRO-1^{bright} cells ~~and/or progeny thereof and/or soluble factors derived therefrom~~.

~~89~~. The ~~method~~ use of any one of claims 1 to ~~78~~, wherein the population enriched for STRO-1^{+} cells ~~and/or progeny thereof and/or soluble factors derived therefrom~~ are administered systemically.

~~910~~. The ~~method~~ use of any one of claims 1 to 9, wherein the population ~~and/or the progeny and/or the soluble factors are~~is administered a plurality of times.

~~1011~~. The ~~method~~ use of claim ~~910~~, wherein the population ~~and/or the progeny and/or the soluble factors are~~ is administered once every four or more weeks.

~~1112~~. The ~~method~~ use of any one of claims 1 to ~~10~~ 11 comprising administering a dose of the population ~~and/or the progeny and/or the soluble factors~~ sufficient to achieve one or more of the following:

(i) reduce triglycerides;

(ii) reduce low density lipoproteins;

(iii) increase high density lipoproteins;

(iv) increase lipoprotein index;

(v) reduce fasting glucose levels;

(vi) increase insulin secretion by the pancreas;

(vii) increase glucose clearance following feeding;

(viii) reduce insulin resistance; and

(ix) reduce body weight.

~~12~~13. The ~~method~~ use of any one of claims 1 to 12~~1~~, ~~comprising administering~~wherein the medicament comprises an amount of cells sufficient to administer between 0.1 x 10^6 to 5 x 10^6 STRO-1^+ cells~~ and/or progeny thereof per kg~~.

~~13~~14. The ~~method~~ use of any one of claims 1 to 12~~1~~, wherein the medicament comprises an amount of cells sufficient to administer ~~comprising administering~~ between 0.3 x 10^6 to 2 x 10^6 STRO-1^+ cells~~ and/or progeny thereof per kg~~.

14~~5~~. The ~~method~~ use of any one of claims 1 to 1~~1~~2 wherein the medicament comprises an amount of cells sufficient to administer ~~comprising administering~~ a low dose of STRO-1^+ cells ~~and/or progeny thereof~~.

15~~6~~. The ~~method~~ use of claim ~~14~~15, wherein the low dose of STRO-1^+ cells and/or progeny thereof comprises between 0.1 x 10^5 and 0.5 x 10^6 STRO-1^+ cells~~ and/or progeny thereof per kg~~.

16~~7~~. The ~~method~~ use of claim 15~~4~~, wherein the low dose of STRO-1^+ cells and/or progeny thereof comprises about 0.3 x 10^6 STRO-1^+ cells~~ and/or progeny thereof per kg~~.

17~~8~~. The ~~method~~ use of any one of claims 1 to 16~~7~~, wherein the population enriched for STRO-1^+ cells ~~and/or progeny cells~~ are autogeneic or allogeneic~~ and/or the soluble factors can be derived from autogeneic or allogeneic cells~~.

18~~9~~. The ~~method~~ use of any one of claims 1 to 18~~7~~, wherein the population enriched for STRO-1^+ cells ~~and/or progeny cells~~ have been culture expanded prior to administration and/or prior to obtaining the soluble factors.

~~19~~20. The ~~method~~ use of any one of claims 1 to ~~18~~9, wherein the population enriched for STRO-1^+ cells are STRO-1^{bri}, and/or express tissue non-specific alkaline phosphatase (TNAP) ~~and/or the progeny cells and/or soluble factors are derived from STRO-1^+ cells that are STRO-1^{bri} and/or express TNAP~~.

~~20~~21. The ~~method~~ use ~~according to~~ of any one of claims 1 to ~~19~~20, wherein the medicament is ~~STRO-1^+ cells and/or progeny cells thereof and/or soluble factors derived therefrom are administered~~ in the form of a composition comprising said STRO-1^+ cells ~~and/or progeny cells thereof and/or soluble factors derived therefrom~~ and a carrier and/or excipient.

~~21. A population of cells enriched for STRO-1^+ cells and/or progeny thereof and/or soluble factors derived therefrom for use in the treatment or prevention of obesity and/or metabolic syndrome and/or a symptom of metabolic syndrome.~~

~~22. Use of a population of cells enriched for STRO-1^+ cells and/or progeny thereof and/or soluble factors derived therefrom in the manufacture of a medicament for treating or preventing obesity and/or metabolic syndrome and/or a symptom of metabolic syndrome in a subject.~~