Claims

1. Use of a pharmaceutical preparation in the manufacture of a medicament (1) in the treatment of ageing or (2) as an anti-ageing agent,
   wherein the pharmaceutical preparation is prepared by a production method comprising the following steps: providing a liquid comprising cellular constituents of blood collected from a human organism, wherein said liquid is a blood sample, and providing a vessel or containment means and contacting said liquid with said vessel or containment means, wherein
   (i) said production method further comprises the step of incubating said liquid in said vessel or containment means, and optionally removing cellular constituents of said liquid after said incubation, or
   (ii) said liquid comprises exosomes, and said production method further comprises the steps of concentrating said exosomes and optionally removing cellular constituents of said liquid after said concentration, or the step of isolating said exosomes.

2. The use according to alternative (ii) of claim 1 , wherein said production method, before the step of concentrating or isolating said exosomes, further comprises the step of incubating said liquid in said vessel or containment means for an incubation time, or the step of avoiding incubation of said liquid.

3. The use according to claim 1 or 2, wherein said blood sample is (1) a whole blood sample or (2) a whole blood sample from which cells have been depleted.

4. The use according to claim 3, wherein said cells that have been depleted are erythrocytes.

5. The use according to any one of claims 1 to 4, wherein the step of removing cellular constituents is a step of removing the erythrocytes, the platelets or the entirety of cellular constituents.

6. The use according to any one of claims 1 to 5, wherein
   (a) said production method further comprises the step of reducing the volume of said liquid and/or
   (b) the pharmaceutical preparation is in dry form.

7. The use according to any one of claims 1 to 6, wherein the ageing is associated with
   (a) a disorder selected from the group consisting of kyphosis, osteoporosis, tremor, ataxia, dystonia, neurodegeneration, neuroinflammation, Alzheimer’s disease, mild cognitive impairment, cerebrovascular disease, Parkinson’s disease, amyotrophic lateral sclerosis, a gait disorder, and reduced grip strength, muscle wasting and cachexia, or

(b) a disorder selected from the group consisting of atherosclerosis, cardiovascular disease, cancer, hearing deficits, vision deficits, cataracts, retinal degeneration, type 2 diabetes, hypertension and liver failure.

8. The use according to any one of claims 1 to 7, wherein said treatment is by increasing cell division and/or stimulating an anti-apoptotic pathway.

9. The use according to any one of claims 1 to 8, wherein said treatment is by preventing or reducing oxidative and/or DNA damage and/or by stimulating DNA repair.

10. The use according to any one of claims 1 to 9, wherein said human being is at least 48 years old.

11. The use according to any one of claims 1 to 10, wherein said pharmaceutical preparation comprises exosomes.

12. The use according to claim 11, wherein exosomes have been generated during said incubation.

13. The use according to claim 11 or 12, wherein the average diameter of the exosomes as determined by transmission electron microscope is in the range between 30 and 200 nm.

14. The use according to any one of claims 11 to 13, wherein said production method further comprises the step of concentrating or isolating said exosomes after said incubation, and optionally taking up the concentrated or isolated exosomes in a fluid.

15. The use according to any one of claims 1 to 14, wherein the pharmaceutical preparation comprises serum or plasma.

16. The use according to any one of claims 1 to 15, wherein said production method further comprises the step of removing the cellular constituents of the blood sample after said incubation.

17. The use according to any one of claims 1 to 16, wherein said incubation is carried out
    (a) during a time period of up to 72 hours and/or
    (b) at a temperature from 0°C to 45°C.

18. The use according to any one of claims 1 to 17, wherein said vessel or containment means
    (a) include(s) a surface for contacting the liquid that comprises glass, plastic, corundum or quartz or a combination thereof and/or
    (b) contain(s) particles selected from the group consisting of macroscopic particles, microscopic particles and nanoparticles, and wherein during said incubation the liquid is in contact with said particles.

19. The use according to claim 18, wherein said plastic is selected from the group consisting of polystyrene, polycarbonate, polyethylene and polypropylene.

20. The use according to any one of claims 1 to 19, wherein said use or method is
    (a) in the treatment of the same organism from whom said liquid has been collected and/or
    (b) in a combination therapy with another agent effective in the treatment of ageing or as an anti-ageing agent.

21. The use according to any one of claims 1 to 20, wherein said treatment is by local or systemic administration.