CLAIMS

1. Use of a population of cells enriched for cells expressing STRO-1^{bright} and/or progeny thereof and/or soluble factors derived therefrom in the preparation of a medicament for the treatment of GvHD complications in a mammalian patient.

2. Use according to Claim 1, in which (a) precursors of bone marrow lineage cells, and (b) a population of cells enriched for STRO-1^{bright} cells and/or progeny thereof and/or soluble factors derived therefrom are administered to a mammal.

3. Use according to Claim 2, in which the population of cells enriched for STRO-1^{bright} cells and/or progeny cells thereof and/or soluble factors derived therefrom is administered to the mammal prior to administration of the precursors of bone marrow lineage cells.

4. Use according to Claim 2, in which the population of cells enriched for STRO-1^{bright} cells and/or progeny cells thereof and/or soluble factors derived therefrom is co-administered with the precursors of bone marrow lineage cells.

5. Use according to any of Claims 2 to 4, in which the precursors of bone marrow lineage cells are allogeneic cells administered to the mammal to treat a malignant or genetic disease of the blood.

6. Use according to any of Claims 1 to 5, in which the STRO-1^{bright} cells and/or progeny thereof are allogeneic.

7. Use according to any of Claims 1 to 6, in which the population of cells enriched for STRO-1^{bright} cells and/or progeny cells thereof and/or soluble factors derived therefrom is administered systemically.

8. Use according to Claim 7, in which the population of cells enriched for STRO-1^{bright} cells and/or progeny cells thereof and/or soluble factors derived therefrom is administered by intravenous injection.

9. Use according to any of Claims 1 to 8, comprising administering between 0.1 x 10^6 to 5 x 10^6 STRO-1^{bright} cells and/or progeny thereof.

10. Use according to any of Claims 1 to 9, comprising administering between 0.3 x 10^6 to 2 x 10^6 STRO-1^{bright} cells and/or progeny thereof.

11. Use according to any of Claims 1 to 10, in which a low dose of STRO-1^{bright} cells and/or progeny thereof comprising between 0.1 x 10^5 and 0.5 x 10^6 STRO-1^{bright} cells and/or progeny thereof is administered.

12. Use according to Claim 10, in which a low dose of STRO-1^{bright} cells and/or progeny thereof comprising about 0.3 x 10^6 STRO-1^{bright} cells and/or progeny thereof is administered.

13. Use according to any of Claims 1 to 12, in which the population enriched for STRO-1^{bright} cells and/or progeny thereof and/or soluble factors derived therefrom are administered once weekly or less often.

14. Use according to any of Claims 1 to 13, in which the mammal is suffering from aplastic anemia, myelofibrosis, or bone marrow failure following chemotherapy and radiation therapy.

15. Use according to any of Claims 1 to 14, further comprising administering an immunosuppressive drug to the mammal.

CLAIMS

1. Use of a population of cells enriched for cells expressing STRO-1^{bright} and/or progeny thereof and/or soluble factors derived therefrom in the preparation of a medicament for the prevention or treatment of GvHD complications in a mammalian patient, in which the population of cells used in the preparation of the medicament was not co-cultured in the presence of hemopoietic progenitor cells.

2. Use according to Claim 1, in which (a) precursors of bone marrow lineage cells, and (b) a population of cells enriched for STRO-1^{bright} cells and/or progeny thereof and/or soluble factors derived therefrom are administered to a mammal.

3. Use according to Claim 2, in which the population of cells enriched for STRO-1^{bright} cells and/or progeny cells thereof and/or soluble factors derived therefrom is administered to the mammal prior to administration of the precursors of bone marrow lineage cells.

4. Use according to Claim 2, in which the population of cells enriched for STRO-1^{bright} cells and/or progeny cells thereof and/or soluble factors derived therefrom is co-administered with the precursors of bone marrow lineage cells.

5. Use according to any of Claims 2 to 4, in which the precursors of bone marrow lineage cells are allogeneic cells administered to the mammal to treat a malignant or genetic disease of the blood.

6. Use according to any of Claims 1 to 5, in which the STRO-1^{bright} cells and/or progeny thereof are allogeneic.

7. Use according to any of Claims 1 to 6, in which the population of cells enriched for STRO-1^{bright} cells and/or progeny cells thereof and/or soluble factors derived therefrom is administered systemically.

8. Use according to Claim 7, in which the population of cells enriched for STRO-1^{bright} cells and/or progeny cells thereof and/or soluble factors derived therefrom is administered by intravenous injection.

9. Use according to any of Claims 1 to 8, comprising administering between 0.1 x 10^6 to 5 x 10^6 STRO-1^{bright} cells and/or progeny thereof.

10. Use according to any of Claims 1 to 9, comprising administering between 0.3 x 10^6 to 2 x 10^6 STRO-1^{bright} cells and/or progeny thereof.

11. Use according to any of Claims 1 to 10, in which a low dose of STRO-1^{bright} cells and/or progeny thereof comprising between 0.1 x 10^5 and 0.5 x 10^6 STRO-1^{bright} cells and/or progeny thereof is administered.

12. Use according to Claim 10, in which a low dose of STRO-1^{bright} cells and/or progeny thereof comprising about 0.3 x 10^6 STRO-1^{bright} cells and/or progeny thereof is administered.

13. Use according to any of Claims 1 to 12, in which the population enriched for STRO-1^{bright} cells and/or progeny thereof and/or soluble factors derived therefrom are administered once weekly or less often.

14. Use according to any of Claims 1 to 13, in which the mammal is suffering from aplastic anemia, myelofibrosis, or bone marrow failure following chemotherapy and radiation therapy.

15. Use according to any of Claims 1 to 14, further comprising administering an immunosuppressive drug to the mammal.