CLAIMS

~~1. A combination comprising cells having procoagulant activity, as determined by thromboelastometry, at least one antithrombin activator, and at least one thrombin inhibitor.~~

~~2. The combination according to claim 1, wherein said cells are selected from the group consisting of stem cells and progenitor cells.~~

~~3. The combination according to any one of claims 1 to 2, wherein the cells are adult liver-derived progenitor or stem cells, mesenchymal stem cells (preferably bone marrow mesenchymal stem cells), skin fibroblasts, or liver myofibroblasts.~~

~~4. The combination according to any one of claims 1 to 3, wherein the cells express tissue factor.~~

~~5. The combination according to any one of claims 1 to 4, wherein the cells comprise a procoagulant activity component independent of the expression of tissue factor by the cells and/or comprise a procoagulant activity component resistant to heparin.~~

~~6~~1. A combination comprising at least one antithrombin activator, at least one thrombin inhibitor, and cells selected from the group consisting of adult liver progenitor cells and liver myofibroblasts, wherein

- the antithrombin activator is selected from the group consisting of heparin, unfractionated heparin, low molecular weight heparin and fondaparinux; and

- the thrombin inhibitor is selected from the group consisting of bivalirudin and hirudin

2. The combination according to claim 1, wherein the adult liver progenitor cells are adult liver-derived progenitor or stem cells which express alpha-smooth muscle actin (ASMA) and albumin (ALB) and do not express cytokeratin-19 (CK-19), or are non-oval adult human liver-derived pluripotent progenitor cells which express hepatic cell markers and which are capable of differentiating into mature liver cells, insulin-producing cells, osteogenic cells and epithelial cells, or are non-oval adult human liver-derived pluripotent progenitor cells which express hepatic cell markers and which are capable of differentiating into mature liver cells, insulin-producing cells, osteogenic cells and endothelial cells.

~~7~~3. The combination according to any of claims 1 ~~to 6~~or 2 configured for separate, simultaneous or sequential in any order administration of said cells, at least one antithrombin activator and at least one thrombin inhibitor to a subject.

~~8~~4. The combination according to any one of claims 1 to ~~7~~3, wherein the antithrombin activator is ~~selected from the group consisting of unfractionated heparin, low molecular weight heparin and fondaparinux, preferably~~ unfractionated heparin.

~~9~~5. The combination according to any one of claims 1 to ~~8~~4, wherein the thrombin inhibitor is ~~selected from the group consisting of bivalirudin and hirudin, preferably~~ bivalirudin.

~~10~~6. A pharmaceutical composition comprising the combination according to any one of claims 1 to ~~9~~ 5 and one or more pharmaceutically acceptable excipients.

~~11~~7. The combination according to any one of claims 1 to ~~9~~ 5 or the pharmaceutical composition according to claim ~~10~~ 6 for use as a medicament.

~~12~~8. Use of t~~T~~he combination according to any one of claims 1 to ~~9~~ 5 or the pharmaceutical composition according to claim ~~10~~ 6 for the manufacture of a medicament for ~~use in~~ transplantation of the cells; or for ~~use in~~ the

treatment of thrombosis or thrombotic complications caused by transplantation of said cells; or for ~~use in~~ inhibiting procoagulant activity of said cells *in vivo*.

~~13~~9. The combination or pharmaceutical composition for use according to ~~any one of~~ claim~~s 11~~ 7 ~~or 12~~, wherein the antithrombin activator is unfractionated heparin to be administered to a subject via a cell suspension comprising about 5-15 UI/ml, preferably about 8-12 UI/ml, more preferably about 10 UI/ml or by intravenous administration at about 10-30 UI/kg/hr, preferably about 15-25 UI/kg/hr, more preferably about 20 UI/kg/hr and/or wherein the thrombin inhibitor is bivalirudin ~~or hirudin~~ to be administered to a subject respectively at between about 0.50 and about 3.00 mg/kg body weight or between about 0.2 and 0.6 mg/kg body weight.

~~14~~10. The combination or pharmaceutical composition for use according to ~~any one of~~ claim~~s 11~~ 7 ~~or 12~~, wherein (a) a composition comprising a cell suspension of the cells in an aqueous solution containing the at least one antithrombin activator is to be prepared; (b) an aqueous solution containing the at least one thrombin inhibitor is to be prepared; and (c) the composition as defined in (a) and the solution as defined in (b) is to be administered simultaneously, separately or sequentially to a subject.

11. The use according to claim 8, wherein the antithrombin activator is unfractionated heparin to be administered to a subject via a cell suspension comprising about 5-15 UI/ml, preferably about 8-12 UI/ml, more preferably about 10 UI/ml or by intravenous administration at about 10-30 UI/kg/hr, preferably about 15-25 UI/kg/hr, more preferably about 20 UI/kg/hr and/or wherein the thrombin inhibitor is bivalirudin to be administered to a subject respectively at between about 0.50 and about 3.00 mg/kg body weight or between about 0.2 and 0.6 mg/kg body weight.

12. The use according to claim 8, wherein (a) a composition comprising a cell suspension of the cells in an aqueous solution containing the at least one antithrombin activator is to be prepared; (b) an aqueous solution containing the at least one thrombin inhibitor is to be prepared; and (c) the composition as defined in (a) and the solution as defined in (b) is to be administered simultaneously, separately or sequentially to a subject.

~~15~~13. A method for inhibiting *in vitro* the procoagulant activity of cells ~~as defined in any one of claims 1 to 6~~selected from the group consisting of adult liver progenitor cells and liver myofibroblasts, comprising providing a combination comprising said cells, at least one antithrombin activator, and at least one thrombin inhibitor, wherein:

- the antithrombin activator is selected from the group consisting of heparin, unfractionated heparin, low molecular weight heparin and fondaparinux; and

- the thrombin inhibitor is selected from the group consisting of bivalirudin and hirudin.

~~16~~14. A kit of parts or an article of manufacture comprising the combination according to any one of claims 1 to ~~8~~ 5 and optionally comprising one or more pharmaceutically acceptable excipients.

~~17~~15. Use of a~~A~~ combination comprising at least one antithrombin activator and at least one thrombin inhibitor, or a pharmaceutical composition comprising said combination and one or more pharmaceutically acceptable excipients, for the manufacture of a medicament for ~~use in~~ transplantation of cells ~~as defined in any one of claims 1 to 6~~ selected from the group consisting of adult liver progenitor cells and liver myofibroblasts; or for ~~use in~~ the treatment of thrombosis or thrombotic complications caused by transplantation of said cells; or for ~~use in~~ inhibiting procoagulant activity of said cells *in vivo*, wherein:

- the antithrombin activator is selected from the group consisting of heparin, unfractionated heparin, low molecular weight heparin and fondaparinux; and

- the thrombin inhibitor is selected from the group consisting of bivalirudin and hirudin.

~~18~~16. The use ~~The combination or pharmaceutical composition for use~~ according to claim ~~17~~15, further including the characterising feature or features as defined in any one of claims 2 to ~~9~~5, ~~13~~ 11 or ~~14~~12.

~~19~~17. A method for inhibiting *in vitro* the procoagulant activity of cells ~~as defined in any one of claims 1 to 6~~selected from the group consisting of adult liver progenitor cells and liver myofibroblasts comprising contacting said cells with a combination comprising at least one antithrombin activator and at least one thrombin inhibitor, wherein:

- the antithrombin activator is selected from the group consisting of heparin, unfractionated heparin, low molecular weight heparin and fondaparinux; and

- the thrombin inhibitor is selected from the group consisting of bivalirudin and hirudin.