

Claims

1. A process for the preparation of a cell composition for wound or tissue healing or regeneration treatments, comprising the steps of:

(a) Centrifuging whole blood in a separator tube selected from:

- a glass separator tube containing a polyester-based thixotropic gel and a buffered sodium citrate solution at 0.10 M; and

- a polyethylene terephthalate separator tube containing a highly thixotropic gel formed by a polymer mixture and an anhydrous sodium citrate at 3.5 mg/mL;

(b) Separating enriched platelet rich plasma from full plasma by removing about half of the supernatant containing platelet poor plasma;

(c) Re-suspending the enriched plasma;

wherein the centrifugation step a) is performed at a force of or about 1500g up to about 2000g in a sufficient length of time to form a barrier between plasma containing platelets, lymphocytes and monocytes and a pellet containing erythrocytes; the separation step b) is made by collecting the supernatant from atop of said barrier and wherein the enriched plasma is enriched in leucocytes, thrombocytes and adhesion proteins as compared to native whole blood.

2. A process according to claim 1, wherein the centrifugation step is performed at a force between about 1 '500g and up to about 1 '700g for a time selected from about 3 minutes up to about 15 minutes, or at 1 '500g for about 8 minutes.

3. A process according to claim 1 or claim 2, further comprising the steps of:

(d) Providing a cell extract where cells are selected from dermal cells, keratinocytes, fibroblasts, melanocytes, Langherans cells, fat cells, bone marrow cells, muscle cells, osteoblasts, chondrocytes, periosteal membrane cells, corneal cells, umbilical cord cells, Schwann cells, tendon cells, pancreas islet cells, adipocytes, adipose stem cells, corneal limbal stem cells, corneal keratinocytes, satellite stem cells, myoblast progenitor stem cells, stem cells, cartilage cells, ligament cells and gingival cells; (e) Admixing the platelet concentrate obtained under step (c) with the cell extract obtained in (d).

4. A process according to any of claims 1 to 3 comprising the step of admixing the platelet concentrate obtained under step (c) with a coagulation activator in a vol. ratio (platelet concentrate: coagulation activator) of about 10:1 up to about 10:3, wherein said coagulation activator is optionally a thrombin activator, a fibrinogen activator, calcium, a calcium salt, CaCl_2 , CaCO_3 , CaSO_4 , sodium, batroxobin, thrombin, thrombin enriched preparation, autologous thrombin and/or autologous thrombin serum.