

Title (en)
BLOOD-BORNE MESENCHYMAL CELLS

Title (de)
MESENCHYMZELLEN AUS BLUT

Title (fr)
CELLULES MESENCHYMATEUSES A DIFFUSION HEMATOGENE

Publication
EP 0759070 A4 19980311 (EN)

Application
EP 94913910 A 19940316

Priority
US 9402850 W 19940316

Abstract (en)
[origin: WO9525164A1] The present invention relates to a population of blood borne mammalian cells that express a unique profile of surface markers that includes certain markers typical of connective tissue fibroblasts, and are referred to herein as "blood-borne mesenchymal cells". In particular, it relates to the isolation, characterization and uses of such blood-borne mesenchymal cells. The cells of the present invention can be distinguished from peripheral blood leukocytes by their distinct size, morphology, cell surface phenotype and biologic activities, and are likewise distinguishable from connective tissue fibroblasts by other surface phenotypic markers. These cells proliferate in culture, and in vivo, as demonstrated in animal models, are capable of migrating into wound sites from the blood. Therefore, such blood-borne mesenchymal cells may have a wide range of applications, including, but not limited to, the promotion of wound healing, tissue remodeling, and for gene therapy.

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Citation (search report)

- [X] SIMMONS, P.J. AND TOROK-STORB, B.: "CD34-expression by stromal precursors in normal human adult bone marrow", BLOOD, vol. 78, no. 11, 1991, pages 2848 - 2853, XP002051348
- [X] ALLGOWER, M. AND HULLIGER, L.: "Origin of fibroblasts from mononuclear blood cells: a study on in vitro formation of the collagen precursor, hydroxyproline, in buffy coat cultures", SURGERY, vol. 47, 1960, pages 603, XP002051349
- [XA] VILJANTO, J. AND RAJAMÄKI, A.: "Cellular patterns in the early phase of healing wounds in children", SCANDINAVIAN JOURNAL OF PLASTIC AND RECONSTRUCTIVE SURGERY, vol. 10, no. 2, 1976, pages 83 - 89, XP002051350
- [A] BROWN, J. ET AL.: "The gene encoding the stem cell antigen, CD34, is conserved in mouse and expressed in haemopoietic progenitor cell lines, brain and embryonic fibroblasts", INTERNATIONAL IMMUNOLOGY, vol. 3, no. 2, February 1991 (1991-02-01), pages 175 - 184, XP002051351
- [T] BUCALA, R. ET AL.: "Circulating fibrocytes define a new leukocyte subpopulation that mediates tissue repair", MOLECULAR MEDICINE, vol. 1, no. 1, November 1994 (1994-11-01), pages 71-81, XP002051352
- See references of WO 9525164A1

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