

Title (en)
STEM AND PROGENITOR CELL COMPOSITIONS RECOVERED FROM BONE MARROW OR CORD BLOOD; SYSTEM AND METHOD FOR PREPARATION THEREOF

Title (de)
AUS KNOCHENMARK ODER NABELSCHNURBLUT GEWONNENE STAMM- UND VORLÄUFERZELLEN-ZUSAMMENSETZUNGEN, SYSTEM UND VEFAHREN ZUR HERSTELLUNG DAVON

Title (fr)
COMPOSITIONS DE CELLULES SOUCHES ET DE CELLULES PROGÉNITRICES RÉCUPÉRÉES À PARTIR DE MOËLLE OSSEUSE OU DE SANG OMBILICAL, SYSTÈME ET PROCÉDÉ POUR LEUR PRÉPARATION

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Application
EP 07796720 A 20070706

Priority
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Abstract (en)
[origin: WO2008121120A1] The invention includes compositions of stem and progenitor cells recovered from bone marrow or cord blood containing most of the viable CD34+ cells and substantially depleted of red blood cells resident in the original sample, without any xenobiotic additives to aid cell separation. The invention also includes a system and method for preparing the compositions. The system includes a bag set and a processing device, which utilizes an optical sensor, microcontroller, servo motor, accelerometer, load cell, and battery. The system and method utilize centrifugation to stratify the cells into layers and then separate and transfer the stem cells into a stem cell bag. The processing device's microcontroller receives input from the device's accelerometer, load cell and optical sensor to direct the metering valve in the bag set to open and close to permit the transfer of as many stems cells as possible with as few red cells as possible.

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Citation (search report)
• [XD] TSUBAKI K ET AL: "Concentration of progenitor cells collected from bone marrow fluid using a continuous flow cell separator.", THERAPEUTIC APHERESIS : OFFICIAL JOURNAL OF THE INTERNATIONAL SOCIETY FOR APHERESIS AND THE JAPANESE SOCIETY FOR APHERESIS FEB 2001, vol. 5, no. 1, February 2001 (2001-02-01), pages 46 - 48, XP002569566, ISSN: 1091-6660
• [XI] BOIRET NATHALIE ET AL: "CD34+CDw90(Thy-1)+ subset collocated with mesenchymal progenitors in human normal bone marrow hematon units is enriched in colony-forming unit megakaryocytes and long-term culture-initiating cells.", EXPERIMENTAL HEMATOLOGY (NEW YORK), vol. 31, no. 12, December 2003 (2003-12-01), pages 1275 - 1283, XP002569567, ISSN: 0301-472X
• [X] DENG J -P ET AL: "Isolation and culture of bone marrow mesenchymal stem cells by red blood cell lysis method", JOURNAL OF CLINICAL REHABILITATIVE TISSUE ENGINEERING RESEARCH 20070121 CN, vol. 11, no. 3, 21 January 2007 (2007-01-21), pages 579 - 582, XP001539971, ISSN: 1673-8225
• [A] GASTENS M H ET AL: "Good manufacturing practice-compliant expansion of marrow-derived stem and progenitor cells for cell therapy", CELL TRANSPLANTATION, ELSEVIER SCIENCE, US, vol. 16, no. 7, 1 January 2007 (2007-01-01), pages 685 - 696, XP008093571, ISSN: 0963-6897
• See references of WO 2008121120A1

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