

Key to fields:

PN/ PNFP: Publication Number

PD : Publication Date

PA: Patent Assignee

IN: Inventor

TI: Title

AB: Abstract

GRANTED: Date "B" specification published

RESULTS FOR 1ST MARCH 2009-30TH APRIL 2009

PUBLISHED "A" SPECS

ADULT STEM CELLS -90 Documents

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PN - WO2009055818 A1 20090430

PD - 2009-04-30

PA - UNIV NEW YORK [US]; DJURIC PETAR M [US]; MANGANAS LOUIS M [US]; ENIKOLOPOV GRIGORI N [US]; MALETIC-SAVATIC MIRJANA [US]

IN - DJURIC PETAR M [US]; MANGANAS LOUIS M [US]; ENIKOLOPOV GRIGORI N [US]; MALETIC-SAVATIC MIRJANA [US]

TI - A SPECTRAL BIOMARKER AND ALGORITHM FOR THE IDENTIFICATION AND DETECTION OF NEURAL STEM AND PROGENITOR CELLS AND THEIR USE IN STUDYING MAMMALIAN BRAINS

AB - The disclosure provides a biomarker and algorithm for identifying and detecting neural stem and progenitor cells and their use in studying mammalian brains. The disclosure further provides magnetic resonance spectroscopy methods and an image enhancing algorithm for the study of the proliferation of these cells and the associated neurogenesis in the live mammalian brain.

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PN - WO2009052394 A2 20090423

PD - 2009-04-23

PA - BRADLEY UNIVERSITY [US]; CADY CRAIG [US]; MCASEY MARY [US]

IN - CADY CRAIG [US]; MCASEY MARY [US]

TI - STEM CELL TARGETING OF CANCER, METHODS AND COMPOSITIONS THEREFOR

AB - Disclosed are methods of detecting and treating a cancer such as an ovarian cancer using stem cells. Detection methods include administering a plurality of labeled stem cells to a subject having, or suspected of having, a cancer; and detecting the distribution of the stem cells. In some configurations, the label can be a nanoparticle such as a mono-crystalline iron oxide, which can be detected by magnetic resonance imaging. Treatment methods include administering a plurality of stem cells comprising a therapeutic agent such as an enzyme which activates a prodrug. In some configurations, the stem cells harbor a nucleic acid sequence encoding a cytosine deaminase, the cells express the enzyme, and the treatment further includes administering the prodrug 5-fluorocytosine, which is converted by the cytosine deaminase to the cytotoxic metabolite, 5-fluorouracil (5-FU).

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PN - WO2009052209 A2 20090423

PD - 2009-04-23

PA - UNIV KANSAS [US]; MITCHELL KATHY E [US]; HOYNOWSKI STEVEN M [US]

IN - MITCHELL KATHY E [US]; HOYNOWSKI STEVEN M [US]

TI - ISOLATION OF STEM CELLS AND EFFECTIVE CONTROL OF CONTAMINATION
AB - The invention relates to the improved isolation and culture of stem cells. More particularly the invention relates to a method that provides for increased recovery of sterile and viable stem cells from umbilical cord and other tissue sources where stem cells are not readily dissociated.

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PN - WO2009052132 A1 20090423
PD - 2009-04-23
PA - CHILDRENS MEDICAL CENTER [US]; FAUZA DARIO [US]
IN - FAUZA DARIO [US]
TI - HUMAN AMNIOTIC FLUID DERIVED MESENCHYMAL STEM CELLS
AB - The invention provide methods for isolating, expanding, and enriching human fetal mesenchymal stem cells (MSCs) from human amniotic fluid in the absence of non-human derived animal products, cryopreserving the human fetal MSC in the absence of non-human derived animal products for future uses, thawing the cryopreserved MSCs for therapeutic use and/or further cell expansion, expanding the thawed previously cryopreserved stem cells in the absence of non-human derived animal products, and differentiating the MSCs.

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PN - WO2009050282 A1 20090423
PD - 2009-04-23
PA - TXCELL [FR]; FOUSSAT ARNAUD [FR]; BELMONTE NATHALIE [FR]
IN - FOUSSAT ARNAUD [FR]; BELMONTE NATHALIE [FR]
TI - TR1 CELLS, MESENCHYMAL STEM CELLS AND USES THEREOF
AB - The present invention relates to compositions comprising Tr1 cells and mesenchymal stem cells and methods for treating an autoimmune disease, an allergic disease or an inflammatory disease.

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PN - EP2051718 A2 20090429
PD - 2009-04-29
PA - OSIRIS THERAPEUTICS INC [US]
IN - AGGARWAL SUDEEPTA [US]; PITTENGER MARK F [US]; VARNEY TIMOTHY [US]; DANILKOVITCH ALLA [US]
TI - MESENCHYMAL STEM CELLS AND USES THEREFOR
AB - Methods of treating autoimmune diseases, allergic responses, cancer, inflammatory diseases, or fibrosis in an animal, promoting wound healing, repairing epithelial damage and promoting angiogenesis in an organ or tissue of an animal by administering to the animal mesenchymal stem cells in an effective amount.

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PN - WO2009048166 A1 20090416
PD - 2009-04-16 PA - UNIV KYOTO [JP]; OH HIDEMASA [JP]; TAKEHARA NAOFUMI [JP]; MATSUBARA HIROAKI [JP]; TABATA YASUHIKO [JP]
IN - OH HIDEMASA [JP]; TAKEHARA NAOFUMI [JP]; MATSUBARA HIROAKI [JP]; TABATA YASUHIKO [JP]
TI - THERAPEUTIC AGENT FOR HEART DISEASE, WHICH IS INTENDED TO BE USED IN CELL TRANSPLANTATION THERAPY
AB - The object is to establish a cell transplantation therapy using a multipotent stem cell derived from a cardiac tissue, which can significantly improve the adhesion of the multipotent stem cell and the efficiency of the regeneration of a cardiac muscle cell, and which can treat a heart disease more effectively. In a cell transplantation therapy for a heart disease, a combination of a multipotent stem cell derived from a cardiac tissue and a hydrogel containing a basic fibroblast growth factor (bFGF) is used, whereby the adhesion of the multipotent stem cell can be increased and the efficiency of the regeneration of a cardiac muscle cell can be improved significantly.

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PN - WO2009046541 A1 20090416
PD - 2009-04-16

PA - UNIV HEALTH NETWORK [CA]; DANSKA JAYNE [CA]; DICK JOHN E [CA]; PRASOLAVA TATIANA [CA]; TAKENAKA KATSUTO [JP]
IN - DANSKA JAYNE [CA]; DICK JOHN E [CA]; PRASOLAVA TATIANA [CA]; TAKENAKA KATSUTO [JP]
TI - MODULATION OF SIRPa - CD47 INTERACTION FOR INCREASING HUMAN HEMATOPOIETIC STEM CELL ENGRAFTMENT AND COMPOUNDS THEREFOR
AB - The invention relates to modulating the SIRPa - CD47 interaction in order to increase hematopoietic stem cell engraftment and compounds therefor. In some embodiments, there is provided isolated SIRPa and CD47 polypeptides, fragments and fusion proteins for enhancing hematopoietic stem cell engraftment. Further there is provided methods for increasing hematopoietic stem cell engraftment through administration of the above polypeptides.

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PN - EP2049656 A2 20090422
PD - 2009-04-22
PA - UNIV COLUMBIA [US]; UNIV NEW YORK [US]
IN - GAUDETTE GLENN [US]; POTAPOVA IRINA [US]; BRINK PETER R [US]; COHEN IRA S [US]; ROBINSON RICHARD B [US]; ROSEN MICHAEL R [US]
TI - USE OF LATE PASSAGE MESENCHYMAL STEM CELLS (MSCS) FOR TREATMENT OF CARDIAC RHYTHM DISORDERS
The present invention provides methods and compositions relating to the use of late passage mesenchymal stem cells (MSCs) for treatment of cardiac rhythm disorders. The late passage MSCs of the invention may be used to provide biological pacemaker activity and/or provide a bypass bridge in the heart of a subject afflicted with a cardiac rhythm disorder. The biological pacemaker activity and/or bypass bridge may be provided to the subject either alone or in tandem with an electronic pacemaker.

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PN - EP2049043 A1 20090422
PD - 2009-04-22
PA - INTERNAT STEM CELL CORP [US]
IN - HAMMOND JEREMY [US]; KELLEHER-ANDERSSON JUDY [US]
TI - SYNTHETIC CORNEA FROM RETINAL STEM CELLS
AB - Methods of producing synthetic corneas are disclosed which are differentiated from retinal stem cells (rSC) derived from parthenogenetically activated human oocytes, including that such synthetic corneas are produced in the absence of a 3-D scaffold. Isolated synthetic corneas, produced by the disclosed methods, are also described.

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PN - WO2009046377 A2 20090409
PD - 2009-04-09
PA - MEDISTEM LAB INC [US]; RIORDAN NEIL H [US]; ICHIM THOMAS E [US]
IN - RIORDAN NEIL H [US]; ICHIM THOMAS E [US]
TI - COMPOSITIONS AND METHODS OF STEM CELL THERAPY FOR AUTISM
AB - Disclosed are methods, compositions of matter, and cells, useful for the treatment of autism, social integrative disorders, and various cognitive abnormalities. The invention discloses, inter alia, means of substantially ameliorating or reversing the progression of autism through the administration of autologous and/or allogeneic stem cells, alone or in combination with mobilization agents. The use of stem cells and cells naturally possessing or endowed with angiogenic and anti-inflammatory activity are disclosed for autism either alone or in combination with various therapeutic interventions.

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PN - WO2009046346 A2 20090409
PD - 2009-04-09
PA - MEDISTEM LAB INC [US]; RIORDAN NEIL H [US]; ICHIM THOMAS E [US]
IN - RIORDAN NEIL H [US]; ICHIM THOMAS E [US]
TI - STEM CELL THERAPY FOR WEIGHT LOSS

AB - Disclosed are methods, cells, and compositions of matter useful for the treatment of obesity, including but not limited to, diminishment of rate of weight gain, maintenance of body weight, or induction of weight loss. The invention teaches particular administration of various cell populations, including mononuclear cells from adipose tissue, in order to directly induce weight loss or activate biological pathways whose effects culminate in weight loss. The invention may also be utilized within the context of existing weight loss programs in order to augment their efficacy.

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PN - WO2009046058 A1 20090409
PD - 2009-04-09
PA - UNIV MIAMI [US]; HARE JOSHUA M [US]; CHATZISTERGOS KONSTANTINOS [US]
IN - HARE JOSHUA M [US]; CHATZISTERGOS KONSTANTINOS [US]
TI - A METHOD TO AMPLIFY CARDIAC STEM CELLS IN VITRO AND IN VIVO
AB - Compositions comprising stem cells delivered into infarcted myocardium by endocardial injection, engraft and differentiate into myocytes, endothelial cells, and vascular smooth muscle, and do so without the requirement for survival enhancing modification. These cells engraft whether injected acutely (days) or late (months) after myocardial infarction, and the efficiency of engraftment correlates with the functional recovery of the heart. The stem cells also recruit endogenous cardiac precursor cells, reconstitute myocardial stem cell niches, and enhance endogenous cell differentiation into myocytes.

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PN - WO2009045201 A1 20090409
PD - 2009-04-09
PA - BIOGEN IDEC INC [US]; CHU PETER [US]; PEACH ROBERT [US]
IN - CHU PETER [US]; PEACH ROBERT [US]
TI - CANCER STEM CELLS
AB - Cancer stem cell populations characterized by expression of CD44hi, ABCG2, ss-catenin, CD117, CD133, ALDH, VLA-2, CD166, CD201, IGFR, and/or EGF1 R, and methods of isolating and using the same.

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PN - WO2009044943 A1 20090409
PD - 2009-04-09
PA - SEOUL NAT UNIV IND FOUNDATION [KR]; CHOUNG PILL-HOON [KR]
IN - CHOUNG PILL-HOON [KR]
TI - VARIOUS HUMAN DENTAL STEM CELLS HAVING A MINERALIZATION ABILITY AND THE METHOD FOR CULTURING THEM
AB - The present invention relates to various human dental stem cells having a mineralization ability and a method for culturing the same, more precisely postnatal stem cells having a mineralization ability, which are separated from human dental tissues such as dental pulp (DPSCs), periodontal ligament (PDLSCs), periapical follicle (PAFSCs) and mandibular bone marrow (MBMSCs) and a method for culturing the same under the optimum growth conditions. The human dental stem cells of the present invention can be obtained without additional injury as well as new stem cell sources such as teeth extracted from orthodontic purposes, prophylactically extracted nondecayed third molar teeth and discarded bone segments from orthognathic surgery, so that they can be effectively used for regeneration of injured teeth.

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PN - WO2009044379 A2 20090409
PNFP - WO2009044379 A3 20090522
PD - 2009-04-09
PA - MEDINFAR PRODUTOS FARMACEUTICO [PT]; GANCHAS SOARES RITA ISABEL [PT]; BAPTISTA COELHO MARIA CONSTANC [PT]; SILVA SANTOS JORGE MIGUEL [PT]; MARTINS JOSE PAULO [PT]; BASTO VERA ALEXANDRA [PT]; ESTILITA MONTEIRO DA CRUZ PEDR [PT]; SOARES DA CRUZ HELDER JOAQUIM [PT]
IN - GANCHAS SOARES RITA ISABEL [PT]; BAPTISTA COELHO MARIA CONSTANCA [PT]; SILVA SANTOS JORGE MIGUEL [PT]; MARTINS JOSE PAULO [PT]; BASTO VERA

ALEXANDRA [PT]; ESTILITA MONTEIRO DA CRUZ PEDRO [PT]; SOARES DA CRUZ HELDER JOAQUIM [PT]

TI - OPTIMISED AND DEFINED METHOD FOR ISOLATION AND PRESERVATION OF PRECURSOR CELLS FROM HUMAN UMBILICAL CORD

AB - The present invention refers to an optimized and defined method for isolation and preservation of precursor cells from human umbilical cord. Besides being reproducible and 100% reliable, in terms of the number of samples processed, the method results in a high and defined number of precursor cells, being the majority obtained after a single adhesion and expansion/multiplication phase ex vivo (thus granting cell phenotype), in a shorter time frame than what was previously described in the state-of-the-art. With this method, it is possible to obtain, in 9 days, after direct freezing of a cell fraction, and after one expansion/multiplication phase ex vivo (end of PO) of the majority of the cells, about 8×10^6 cells/gram of processed umbilical cord. In turn, the characteristics of the cells allow, for example, after 35 days, obtaining an average of 7.7×10^{15} cells, with precursor phenotype, from 100% of processed umbilical cord samples. The method, because it is simple, robust and 100% reliable, can be performed under good manufacturing practices (GMP) in laboratories dedicated to cell therapy in humans. Furthermore, the method has applications in the pharmaceutical, cosmetic and biotechnology areas.

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PN - WO2009043159 A1 20090409

PD - 2009-04-09

PA - HOSPITAL FOR SICK CHILDREN [CA]; UNIV EDINBURGH [GB]; DIRKS PETER B [CA]; SMITH AUSTIN [GB]; CLARK IAN D N [CA]; POLLARD STEVE [GB]

IN - DIRKS PETER B [CA]; SMITH AUSTIN [GB]; CLARK IAN D N [CA]; POLLARD STEVE [GB]

TI - NEURAL TUMOR STEM CELLS AND METHODS OF USE THEREOF

AB - The present invention relates to the discovery that renewable stem cell lines can be derived from tumor cells and can be cultured in vitro. Accordingly, the invention provides neural tumor stem cell lines and cells from such cell lines. Because the cell lines retain characteristics of the tumors from which they are derived, the cells can be used in screening methods for identification of potential therapeutic agents and can be used to identify genetic markers which may be predictive for development of such tumors. Finally, such cells can be used to determine an appropriate therapeutic regimen for a patient suffering from a brain tumor. Cells from a patient's brain tumor can be cultured as described herein to create a cell line, and the relative effectiveness of a therapeutic agent against the cells can be tested to determine which agent or combination of agents is most effective in treating the patient's tumor.

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PN - EP2048227 A2 20090415

PD - 2009-04-15

PA - AGENCY SCIENCE TECH & RES [SG]

IN - NURCOMBE VICTOR [SG]; COOL SIMON [SG]

TI - Methods for proliferating stem cells

AB - The invention relates to methods of proliferating stem cells. More particularly, the invention relates to the use of glycosaminoglycans or proteoglycans to promote the growth of stem cells in ex vivo culture, while preserving their multipotentiality

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PN - EP2048228 A2 20090415

PD - 2009-04-15

PA - UNIV NORTH CAROLINA [US]

IN - REID LOLA M [US]; KUBOTA HIROSHI [US]; MOSS NICHOLAS [US]

TI - Human liver progenitors

AB - Methods of isolating and cryopreserving progenitors from human liver are disclosed which include processing human liver tissue to provide a substantially single cell suspension comprising progenitors and non-progenitors of one or more cell lineages found in human liver, subjecting the suspension to a debulking step, which reduces substantially the number of non-progenitors in the suspension, and which provides a debulked suspension enriched in progenitors exhibiting one or more markers associated with at least one of the one or more cell lineages; and

selecting from said debulked suspension those cells, which themselves, their progeny, or more mature forms thereof express one or more markers associated with at least one of the one or more cell lineages. Among these markers are CD14, CD34, CD38, CD45, and ICAM. Hepatic progenitors are characterized as being 6-15 [mu] in diameter, diploid, glycophorin A - , CD45 - , AFP +++ , ALB + , ICAM + and with subpopulations varying in expression of CD14 + , CD34 ++ , CD38 ++ , CD117 + . These progenitor subpopulations have characteristics expected for cells that are particularly useful in liver cell and gene therapies and for establishing bioartificial organs.

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PN - WO2009042201 A1 20090402
OPD - 2007-09-26
PA - CELGENE CELLULAR THERAPEUTICS [US]; ZHANG XIAOKUI [US]; HEIDARAN MOHAMMAD A [US]; VOSKINARIAN-BERSE VANESSA A [US]; KANG LIN [US]; BARRIGAN HENRY RENDON [US]
IN - ZHANG XIAOKUI [US]; HEIDARAN MOHAMMAD A [US]; VOSKINARIAN-BERSE VANESSA A [US]; KANG LIN [US]; BARRIGAN HENRY RENDON [US]
TI - ANGIOGENIC CELLS FROM HUMAN PLACENTAL PERFUSATE
AB - Provided herein are the production of vasculogenic or angiogenic cells from placental perfusate. Also provided are methods of treating an individual having a cardiac or vascular insufficiency, disease, disorder or condition comprising administering to said individual placental perfusate, placental perfusate cells, or combinations of placental perfusate or perfusate cells with placental or non-placental hematopoietic stem cells or adherent placental stem cells.

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PN - WO2009042173 A1 20090402
PD - 2009-04-02
PA - UNIV SOUTH FLORIDA [US]; MOHAPATRA SHYAM S [US]; KONG XIAOYUAN [US]; XU WEIDONG [US]
IN - MOHAPATRA SHYAM S [US]; KONG XIAOYUAN [US]; XU WEIDONG [US]
TI - MATERIALS AND METHODS FOR TREATING ALLERGIC AND INFLAMMATORY CONDITIONS
AB - The subject invention provides for the utilization of bone-marrow derived stem cells in the treatment of allergic and inflammatory diseases. In one embodiment, the invention provides for treatment of asthma. Bone-marrow derived stem cells can be used for decreasing inflammation and alter the course of immune response in the lung.

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PN - US2009082613 A1 20090326
PD - 2009-03-26
IN - DENNIS ROBERT G [US]; WOLF DAVID A [US]; RUDD DONNIE [US]
TI - OSTEO OR TISSUE HEALING KIT AND METHOD OF USING THE SAME
AB - An osteo or tissue healing kit and method of promoting the healing of compromised bone or tissue in a living mammal. The osteo or tissue healing device of the kit includes a magnetic field emitter and a controlling circuit, and at least one stem cell. The method of using the osteo or tissue healing kit includes placing at least one stem cell within the compromised bone or tissue and applying a time variant magnetic field.

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PN - WO2009040666 A2 20090402
PD - 2009-04-02
PA - SONG SUN UK [KR]
IN - SONG SUN UK [KR]; LEE MOON HEE [KR]; KIM CHUL SOO [KR]
TI - TREATMENT OF GRAFT-VERSUS-HOST DISEASE
AB - This present application describes a therapeutic agent for treating acute or chronic graft- versus-host disease using clonal marrow stem cells (cMSCs) as active ingredient.

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PN - WO2009040458 A1 20090402
PD - 2009-04-02

PA - FUNDACION PROGRESO Y SALUD [ES]; GARCIA CASTRO JAVIER [ES]; PEREZ HERNANDEZ DANIEL [ES]; RODRIGUEZ GONZALEZ RENE [ES]; MASIP ORDONEZ MANUEL [ES]; RUBIO AMADOR RUTH [ES]
IN - GARCIA CASTRO JAVIER [ES]; PEREZ HERNANDEZ DANIEL [ES]; RODRIGUEZ GONZALEZ RENE [ES]; MASIP ORDONEZ MANUEL [ES]; RUBIO AMADOR RUTH [ES]
TI - METHOD FOR OBTAINING PLURIPOTENT MESENCHYMAL STEM CELLS
AB - The invention relates to a method for obtaining pluripotent mesenchymal stem cells, using mammalian peripheral blood or blood products thereof as the cell source. Said pluripotent mesenchymal stem cells are a type of adult stem cells that can differentiate into tissues derived from the mesoderm and other cell lines from other embryonic layers.

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PN - EP2042592 A1 20090401
PD - 2009-04-01
PA - IMBA INST FUER MOLEKULARE BIOT [AT]
IN - KNOBLICH JUERGEN [AT]; SCHWAMBORN JENS [AT]
TI - Methods for modulating the proliferation and differentiation potential of stem cells and progenitor cells
AB - Modulators of TRIM-NHL proteins and their use for modulating the proliferation and differentiation potential of stem cells and progenitor cells. Inhibitors of TRIM-NHL proteins, e.g. TRIM32, are useful for stem cell maintenance in vitro and in vivo . Assay methods for identifying TRIM-NHL protein modulators make use of the E3 ligase activity of TRIM32 or its interaction with Argonaute-1.

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PN - EP2044195 A2 20090408
PD - 2009-04-08
PA - VESTA THERAPEUTICS INC [US]
IN - RUIZ JOSEPH CHARLES [US]; SHERWOOD SONYA OLABISI AMELIA [US]; CLARK JENNIFER C [US]
TI - MATRIX AND METHOD FOR ISOLATION OF HEPATIC PROGENITOR CELLS
AB - A method is provided of isolating and propagating hepatic progenitors in vitro on one or multiple extracellular matrix components comprising a collagen in polymeric form. A container for the isolation and propagation of the progenitors comprising culture dishes and/or bioreactors comprising the disclosed matrices is also provided.

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PN - GB2452466 A 20090304
PD - 2009-03-04
PA - CELLARTIS AB [SE]
IN - AMEEN CAROLINE [SE]; KESSON KAROLINA [SE]; SARTIPY PETER [SE]
TI - A novel population of multipotent cardiac precursor cells derived from human blastocysts derived stem cells
AB - A novel population of multipotent cardiac precursor (MCP) cells derived from human blastocysts derived stem cells is disclosed, methods for the preparation thereof and use of the cells for in vitro testing. Basement cells derived from hBS cells are also disclosed and method for the preparation of MCP cells from basement cells. The MCP cells have the following characteristics i) at least 1 % of the cells exhibit no antigen expression of one or more markers for undifferentiated cell, the marker being selected from the group consisting of SSEA-3, SSEA-4, TRA-1-60, TRA-1-81 and Oct-4, ii) at least 1% of the cells exhibit no protein expression of one or more of a neural marker including nestin or GFAP iii) at least 1 % of the cells exhibit protein and/or gene expression of one or more of a mesodermal marker including brachyury, vimentin or desmin iv) at least 1% of the cells exhibit protein and/or gene expression of Flk-1 (KDR). Furthermore, the MCP cells have a characteristic morphology. They grow as clusters of small, round and phase-bright cells; individual cells are 5-20 m in diameter and each cluster is composed of 2-500 cells. They form clusters of round or elongated shape, that appear as loosely adherent cell clumps that as illustrated in figure 2 panel a, b and c. Furthermore, they have a relatively high nucleus-to-cytoplasm ratio, e.g. 1 :2 - 1 :64 of the total volume of the cell and/or appear as balloons on a string, as illustrated in figure 18, schematic sketch. Moreover, the MCP cells are non-contracting.

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PN - EP2044956 A1 20090408
PD - 2009-04-08
PA - CHUGAI PHARMACEUTICAL CO LTD [JP]
IN - YOSHIKUBO TAKASHI [JP]; SHIINA MASASHI [JP]; INAGAKI YUKIKO [JP]
TI - HEMATOPOIETIC STEM CELL PROLIFERATION PROMOTER
AB - The present inventors discovered that the administration of an agonistic minibody (VB22B sc(Fv)2) against the TPO receptor resulted in not only the induction of human megakaryocyte-specific differentiation (increase in platelet precursor cells), but also the engraftment of transplanted hematopoietic stem cells derived from human cord blood (CD34-positive cells) and significant increase in multi-lineage hematopoietic precursor cells. TPO and TPO receptor agonists can be used as agents for promoting the growth of CD34-positive hematopoietic cells or agents for promoting the engraftment of transplanted cells in the bone marrow, which can be effective when administered alone (without using G-CSF and erythropoietin in combination) after hematopoietic stem cell transplantation (in particular, cord blood transplantation). Furthermore, TPO and TPO receptor agonists can be used as agents for promoting the growth and/or differentiation of multilineage hematopoietic precursor cells and agents for promoting the recovery of multilineage hematopoiesis.

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PN - EP2044952 A2 20090408
PD - 2009-04-08
PA - UNI DE VALENCIA ESTUDI GENERAL [ES]; UNIV CASTILLA LA MANCHA [ES]
IN - FARINAS GOMEZ ISABEL [ES]; ANDREU AGULLO CELIA [ES]; RODRIGUEZ FERRON SACRAMENTO [ES]; RAMIREZ CASTILLEJO CARMEN [ES]; SANCHEZ GOMEZ PILAR [ES]; MIRA APARICIO HELENA [ES]; ESCRIBANO MARTINEZ JULIO [ES]; SANCHEZ SANCHEZ FRANCISCO [ES]; AROCA AGUILAR JOSE DANIEL [ES]
TI - USE OF THE PEDF FACTOR TO INDUCE CELL REGENERATION
AB - Use of the PEDF factor to induce cell regeneration. The present invention refers the use of the molecule PEDF for the manufacture of medicines to activate processes included in the group of regenerative processes, such as skin regeneration, wound-ealing, cell therapy for cardiac, neural, or hematopoietic regeneration. It also refers to the manufacture/use of pharmaceutical compounds that contain an efficient quantity of the PEDF factor for stem cell self-renewal.

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PN - EP2043677 A2 20090408
PD - 2009-04-08
PA - ZOLTAN LAB LLC [US]
IN - KISS ZOLTAN [US]
TI - COMBINATIONS OF HUMAN PROTEINS TO ENHANCE VIABILITY OF STEM CELLS AND PROGENITOR CELLS
EC - C12N5/00M
AB - Embodiments of the present invention include the use of a composition of placental alkaline phosphatase or other members of the alkaline phosphatase family alone, or in combination with human transferrin and, optionally, human alpha1-antitrypsin to enhance the in vitro proliferation and survival of adult or embryonic stem cells and/or progenitor cells that are derived from stem cells.

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PN - EP2042591 A1 20090401
PD - 2009-04-01
PA - STEMCELL INST INC [JP]
IN - YOKOO TAKASHI [JP]; OKABE MASATAKA [JP]; HOSOYA TATSUO [JP]
TI - ERYTHROPOIETIN-PRODUCING ORGANOID PRECURSOR, METHOD OF CONSTRUCTING THE SAME AND METHOD OF TREATING ERYTHROPOIETIN-RELATED DISEASE
AB - The subject of the present invention is to provide a means to producing an erythropoietin-producing organoid using mesenchymal stem cell derived from a mammal. It is a method for producing erythropoietin-producing organoid (organ-like structure) precursor, comprising the step of transplanting mesenchymal stem cell derived from a mammal into an embryo within a

pregnant mammalian host or an embryo separated from a pregnant mammalian host to thereby induce the differentiation of the mesenchymal stem cell, in particular, a site to which the mesenchymal stem cell is to be transplanted is a nephrogenic site of the embryo, and a timing of transplantation corresponds to the stage in which an immune system of the host is still immunologically tolerant.

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PN - EP2042190 A1 20090401
PD - 2009-04-01
PA - AICHI PREFECTURE [JP]; SEIKAGAKU KOGYO CO LTD [JP]
IN - OOHIRA ATSUSHIKO [JP]; SATO YOSHIKI [SE]; NAKANISHI KEIKO [JP]; MAEDA HIROSHI [JP]
TI - AMELIORATING AGENT FOR BRAIN DAMAGE
AB - The present invention provides a pharmaceutical composition for ameliorating brain damage induced by oxygen deficiency, comprising a chondroitin sulfate-degrading enzyme and at least one of a neural stem cell(s) and a neural progenitor cell(s), as active ingredients.

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PN - EP2039348 A1 20090325
PD - 2009-03-25
PA - SCHLIEFELBEIN JUERGEN [ES]
IN - SCHLIEFELBEIN JUERGEN [ES]
TI - Cosmetic preparation and method to obtain a somatic stem cell preparation
AB - This invention concerns a cosmetic preparation containing somatic stem cells and a simple method to obtain a somatic stem cell preparation and its use, in particular to ameliorate the appearance of the skin. In one embodiment the stem cells are isolated from human sternum in a simple, fast and painless way. This method advantageously makes an ambulant cosmetic or therapeutic treatment with stem cells in or even outside a hospital possible. In another embodiment the stem cells are isolated from the animal bone marrow and preferably applied to the skin in form of a cream, salve, lotion, gel or wax.

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PN - WO2009035612 A2 20090319
PD - 2009-03-19
PA - UNIV MIAMI [US]; US DEPT OF VETERANS AFFAIRS [US]; SCHILLER PAUL C [US]; D IPPOLITO GIANLUCA [US]
IN - SCHILLER PAUL C [US]; D IPPOLITO GIANLUCA [US]
TI - MULTILINEAGE-INDUCIBLE CELLS AND USES THEREOF
AB - We describe the differentiation of multilineage-inducible cells (MIAMI cells) into endothelial-like cells and/or cardiomyocyte-like cells. In some examples, the cells are isolated from human bone marrow under cell culture conditions, which are believed to resemble an in vivo niche microenvironment in which primitive multipotent cells exist. MIAMI cells have a unique profile of molecular markers, and can be maintained in vitro (for more than 50 population doublings) without detectable changes in their characteristic molecular profile. Methods of isolating, differentiating, and using MIAMI cells are also described.

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PN - EP2037960 A2 20090325
PD - 2009-03-25
PA - GEN HOSPITAL CORP [US]
IN - SCADDEN DAVID T [US]; SAITO YORIKO [JP]; ATTAR EYAL [US]
TI - METHODS FOR MANIPULATING STEM CELLS
AB - The invention generally features methods and compositions for enhancing stem cell function. In particular, the invention provides therapeutic or prophylactic methods that can increase survival, growth or proliferation during blood and/or stem cell transplant and protect stem cells in settings of injury.

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PN - EP2039759 A1 20090325

PD - 2009-03-25
PA - FAGIOLI FRANCA [IT]
IN - FAGIOLI FRANCA [IT]
TI - Ex-vivo expansion method under clinical grade conditions of haematopoietic stem cells isolated from bone marrow to treat ischaemic diseases such as acute myocardial infarction
AB - This invention concerns an expansion method under clinical grade conditions of haematopoietic bone marrow CD34+ stem cells including the phases of: (i) isolation, for immunomagnetic selection, of haematopoietic stem cells from a sample of autologous bone marrow using a closed commercial system CliniMacs; (ii) exposition of haematopoietic stem cells to such conditions to permit expansion and addressing them in a mono-endothelial sense, preparation of cell therapy product resuspended in 10 ml of physiological solution and intracoronary grafting using haemodynamic and heart surgery techniques. This invention also concerns the clinical use of haematopoietic stem cells of marrow blood obtained to treat ischaemic pathologies such as acute myocardial infarction.

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PN - EP2039758 A1 20090325
OPD - 2007-09-21
PA - UNIV LEIPZIG [DE]
IN - CROSS MICHAEL DR [DE]; ALT RUEDIGER [DE]
TI - Cell culture medium and method for culturing stem cells and progenitor cells
AB - The invention relates to a stem cell culture medium that is deficient in both glucose and inositol. As expected most cells die rapidly as in media deficient in both glucose and inositol. However, in particular somatic stem cells and germ line stem cells are surprisingly capable of survival and growth under these conditions, while maintaining their regenerative potential. Thus, the cell culture medium according to the invention allows not only culturing and amplifying but also purification and enrichment of the above mentioned stem cells as most differentiated cells will not survive in the medium
PD - 2009-03-25

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PN - US2009062894 A1 20090305
PD - 2009-03-05
PA - CARDIAC PACEMAKERS INC [US]
IN - STAHMANN JEFFREY E [US]; SALO RODNEY W [US]; QU JIHONG [US]
TI - MEDICAL DEVICE ELECTRODES HAVING CELLS DISPOSED ON NANOSTRUCTURES
AB - Electrodes for tissue stimulation and sensing can comprise a support with nanostructures disposed on the support. Pairs of the electrodes can be placed in close proximity to one another. When electrical energy is supplied to the electrodes, an electrical field (and possibly an electrical current) can be established between the nanostructures on the electrodes. The nanostructures may have cells disposed thereon, for example myocardial cells, myocardial progenitor cells, neural cells and/or stem cells. In addition, the electrodes can be arranged in arrays.

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PN - US2009062895 A1 20090305
PD - 2009-03-05
PA - CARDIAC PACEMAKERS INC [US]
IN - STAHMANN JEFFREY E [US]; SALO RODNEY W [US]; QU JIHONG [US]
TI - MEDICAL DEVICE ELECTRODES INCLUDING NANOSTRUCTURES
AB - Electrodes for tissue stimulation and sensing can comprise a support with nanostructures disposed on the support. Pairs of the electrodes can be placed in close proximity to one another. When electrical energy is supplied to the electrodes, an electrical field (and possibly an electrical current) can be established between the nanostructures on the electrodes. The nanostructures may have cells disposed thereon, for example myocardial cells, myocardial progenitor cells, neural cells and/or stem cells. In addition, the electrodes can be arranged in arrays.

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PN - WO2009032320 A1 20090312

PD - 2009-03-12
PA - REGENETECH INC [US]; VITELLI FRANCESCA P [US]; WOLF DAVID A [US]; RUDD DONNIE [US]
IN - VITELLI FRANCESCA P [US]; WOLF DAVID A [US]; RUDD DONNIE [US]
TI - CELL COMPOSITION FOR TISSUE REGENERATION
AB - A method of extracting human progenitor cells from perivascular tissue of human umbilical cord. The extracted cells are then co-cultured with hemotopoetic stem cells and are useful to grow and repair human tissues including bone. Also included are related methods and compositions related thereto.

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PN - WO2009031818 A2 20090312
PD - 2009-03-12
PA - GENEXEL SEIN INC [KR]; BAE SOHYUN [KR]; KIM HOEON [KR]
IN - BAE SOHYUN [KR]; KIM HOEON [KR]
TI - BIOMARKER FOR PURIFICATION OR IDENTIFICATION OF MESENCHYMAL STEM CELLS AND METHODS OF PURIFICATION OF MESENCHYMAL STEM CELLS BY USING IT
AB - The present invention is related to biomarker for purification and identification of mesenchymal stem cells and methods for purification of mesenchymal stem cells by using it. The present invention provides composition, apparatus and kit for separation or identification of MSCs comprising anti-fibroblast activation protein a (FAP a). Also, the present invention provides the method for identification and purification of MSCs. In detail, the present invention provides the method for identification of MSCs comprising the steps of: contacting anti-FAP a antibody with test cell; detecting the forming of antigen-antibody complex of FAP a of the above test cell and the above anti-FAP a antibody. And the present invention provides the method for separation and purification MSCs comprising the steps of: forming antigen-antibody complex by contacting liquid biological media having MSC with anti-FAP a antibody; and collecting the above antigen-antibody complex.

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PN - WO2009031678 A1 20090312
PD - 2009-03-12
PA - UNIV KEIO [JP]; MATSUZAKI YUMI [JP]; MABUCHI YO [JP]; MORIKAWA SATORU [JP]; OKANO HIDEYUKI [JP]
IN - MATSUZAKI YUMI [JP]; MABUCHI YO [JP]; MORIKAWA SATORU [JP]; OKANO HIDEYUKI [JP]
TI - METHOD OF CONCENTRATING HUMAN MESENCHYMAL STEM CELLS
AB - It is intended to provide a method of highly concentrating human mesenchymal stem cells from a mass of cells containing the human mesenchymal stem cells. To highly concentrate human mesenchymal stem cells, CD271+CD90+ cells are collected from a mass of cells containing the human mesenchymal stem cells by using flow cytometry or the like. In the case where the mass of cells contains blood cells (for example, a mass of cells prepared from bone marrow, peripheral blood, etc.), CD45-CD235a-CD271+CD90+ cells are collected. These cell fractions contain highly pure mesenchymal stem cells that have self-renewal capability, self-propagating capability and pluripotency. Therefore, human mesenchymal stem cells can be highly concentrated by collecting the CD271+CD90+ cells from the mass of cells containing the human mesenchymal stem cells.

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PN - WO2009031606 A1 20090312
PD - 2009-03-12
PA - JAPAN CHEM RES [JP]; MIRACURE INC [JP]; KURODA MASAHIKO [JP]; TAKANASHI MASAKATSU [JP]; SUDO KATSUKO [JP]; YAMAUCHI SHIGEKI [JP]; SHIRONO HIROYUKI [JP]; HIRADO TORU [JP]; MAEDA KENICHI [JP]
IN - KURODA MASAHIKO [JP]; TAKANASHI MASAKATSU [JP]; SUDO KATSUKO [JP]; YAMAUCHI SHIGEKI [JP]; SHIRONO HIROYUKI [JP]; HIRADO TORU [JP]; MAEDA KENICHI [JP]
TI - THERAPEUTIC AND PROPHYLACTIC AGENTS FOR ARTHRITIS
AB - Disclosed are a medicinal agent and a method for treating and/or preventing an arthritis, particularly rheumatoid arthritis. The medicinal agent comprises a human mesenchymal stem

cell. The method comprises administrating an effective amount of a human mesenchymal stem cell to a patient.

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PN - EP2035552 A2 20090318
PD - 2009-03-18
PA - ANTHROGENESIS CORP [US]
IN - HEIDARAN MOHAMMAD A [US]
TI - PLACENTAL NICHE AND USE THEREOF TO CULTURE STEM CELLS
AB - The present invention provides methods for culturing, expanding and differentiating stem cells, particularly human embryonic stem cells. The methods comprise culturing the stem cells for a period of time on a collagen biofabric, particularly a collagen biofabric derived from the amniotic membrane, chorion, or both, from mammalian placenta.

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PN - EP2035547 A2 20090318
PD - 2009-03-18
PA - BIOE INC [US]
IN - COLLINS DANIEL P [US]
TI - DIFFERENTIATION OF MULTI-LINEAGE PROGENITOR CELLS TO HEPATOCYTES
AB - Fetal blood multi-lineage progenitor cells that are capable of a wide spectrum of transdifferentiation are described, as well as methods of differentiating the progenitor cells into mature hepatocytes.

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PN - WO2009030092 A1 20090312
PD - 2009-03-12 PA - INST BASIC MED SCIENCES PLA [CN]; ZHAO CHUNHUA [CN]; HAN QIN [CN]; LI JING [CN]; SUN ZHAO [CN]; HU JIANLI [CN]; ZHU YASHU [CN]; LU SHAN [CN]; BIAN CHUNJING [CN]
IN - ZHAO CHUNHUA [CN]; HAN QIN [CN]; LI JING [CN]; SUN ZHAO [CN]; HU JIANLI [CN]; ZHU YASHU [CN]; LU SHAN [CN]; BIAN CHUNJING [CN]
TI - CULTURE MEDIUM AND METHOD FOR IN VITRO CULTURING HUMAN ADULT PRIMARY MESENCHYMAL STEM CELLS ON A LARGE SCALE, PRIMARY MESENCHYMAL STEM CELLS OBTAINED BY THE METHOD, THE USES THEREOF
AB - A method for in vitro preparing human adult primary mesenchymal stem cells (pMSCs, which are positive for Flk1 marker and Nanog marker) derived from human adult tissues (marrow) on a large scale and the products obtained by the same are provided. Uses of the method and the products obtained by the same in inhibiting the proliferation of tumor cells are also provided. By modifying the key processes and parameters of the preparation of pMSCs, for example simplifying the process of magnetic cell sorting, using human serum culture medium instead of bovine serum culture medium, and using the culture condition at low concentration oxygen (2%), the aim of preparing pMSCs on a large scale is achieved. By using the property of expressing Nanog gene of pMSCs, the novel use of pMSCs in inhibiting the proliferation of tumor cells is invented.

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PN - EP2032692 A2 20090311
PD - 2009-03-11
PA - CARIDIANBCT INC [US]
IN - ANTWILER GLEN DELBERT [US]
TI - METHOD OF CULTURING MESENCHYMAL STEM CELLS
AB - This invention is directed toward methods of expanding mesenchymal stem cells ex vivo.

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PN - EP2032691 A2 20090311
PD - 2009-03-11
PA - NEOSTEM INC [US]

IN - RODGERSON DENIS O [US]; SMITH GEORGE S [US]; ALLIN RONALD E [US]; MARASCO WAYNE A [US]
TI - PROCESSING PROCEDURE FOR PERIPHERAL BLOOD STEM CELLS
AB - An elective healthcare insurance model using an individual's own peripheral blood stem cells for the individual's future healthcare uses. An individual can elect to have his or her own stem cells collected, processed and preserved, while he or she is in healthy or "pre-disease" state, for future distribution for his or her healthcare needs. The process includes methods of collection, processing, preservation and distribution of adult (including pediatric) peripheral blood stem cells during non-diseased state. The stem cells collected will contain adequate dosage amounts, for one or more transplantations immediately when needed by the individual for future healthcare treatments. The collected adult or non-neonate child peripheral blood stem cells can be aliquoted into defined dosage fractions before cryopreservation so that cells can be withdrawn from storage without the necessity of thawing all of the collected cells.

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PN - EP2032694 A1 20090311
PD - 2009-03-11
PA - UNIV TENNESSEE RES FOUNDATION [US]
IN - DUNTSCH CHRISTOPHER [US]; KUKEKEOV VALERY [US]; IGANTOVA TATYANA [US]
TI - COMPOSITIONS ENRICHED IN NEOPLASTIC STEM CELLS AND METHODS COMPRISING SAME
AB - A neoplastic stem cell population enriched for expression of the OCT4 transcription factor as well as methods for their identification, isolation and enrichment are described. The OCT4-enriched neoplastic stem cell population is further utilized for the induction and analysis of cancer in an animal. In addition, methods of preventing, abrogating, or inhibiting cancer, tumor growth, and metastasis via OCT4 inhibition are further provided.

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PN - WO2009027563 A1 20090305
PD - 2009-03-05
PA - GENETRIX S L [ES]; FUNDACIO PRIVADA INST DE RECER [ES]; BUESCHER DIRK [ES]; BAYES GENIS ANTONIO [ES]; ROURA FERRER SANTIAGO [ES]; FARRE CRESPO JORDI [ES]; PRAT VIDAL CRISTINA [ES]
IN - BUESCHER DIRK [ES]; BAYES GENIS ANTONIO [ES]; ROURA FERRER SANTIAGO [ES]; FARRE CRESPO JORDI [ES]; PRAT VIDAL CRISTINA [ES]
TI - POPULATION OF ADULT STEM CELLS DERIVED FROM CARDIAC ADIPOSE TISSUE AND USE THEREOF IN CARDIAC REGENERATION
AB - The invention relates to the isolation and characterisation of a novel population of adult stem cells derived from fatty heart tissue, which express GATA-4 and/or Cx43 in a constitutive manner. Said cell population can be used in cell therapy protocols in order to regenerate damaged myocardial tissue.

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PN - EP2029177 A2 20090304
PD - 2009-03-04
PA - KHOURI ROGER K [US]
IN - KHOURI ROGER K [US]
TI - METHOD AND SYSTEM FOR PREPARING SOFT TISSUE FOR GRAFTING, ENHANCING GRAFTING RESULTS, AND GRAFTING AUTOLOGOUS FAT AND ADIPOCYTE DERIVED STEM CELLS TO SOFT TISSUE SUCH AS THE BREAST AND OTHER TISSUE DEFECTS
AB - A method is disclosed for preparing a soft tissue site, and augmenting the soft tissue site, such as the breast(s), scar, depression, or other defect, of a subject through use of devices that exert a distractive force on the breast(s) and grafting of autologous fat tissue such as domes with sealing rims for surrounding each of the soft tissue site and a regulated pump. The method for preparing the soft tissue site, and enhancing fat graft results, entails application of the distracting force to the targeted soft tissue site at least intermittently for some period of time and preferably several weeks prior to the graft procedure. A related aspect of the invention includes following the

preparation steps by transfer of fat from other areas of the subject to the subject's soft tissue site, and then reapplication of the distractive force to the soft tissue site that received the autologous fat graft. Alternatively, fat from genetically related sources may be used, and the fat may be further processed prior to injection. Substantial soft tissue augmentation, high rates of graft survival and negligible graft necrosis (data demonstrating 80% survival and only 20% necrosis is presented) or calcification result from the practice of these methods

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PN - EP2029142 A1 20090304
PD - 2009-03-04
PA - CHOONGWAE PHARMA CORP [KR]
IN - OH SE WOONG [KR]
TI - COMPOSITION FOR INDUCTION OR INHIBITION OF STEM CELL DIFFERENTIATION
EC - A61K31/495; A61K31/504; C07D487/04; C07D487/14
AB - The present invention relates to composition and methods for inducing or inhibiting differentiation of stem cells. The invention also relates to applications in the treatment of medical conditions, e.g., osteoporosis, bone fracture, bone injuries, myocardial infarction, cardiomyopathy, degenerative muscle diseases, myopathy, and urinary incontinence.

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PN - WO2009052389 A1 20090423
PD - 2009-04-23
PA - BAYLOR COLLEGE MEDICINE [US]; TIERNEY MEGAN P [US]; GOODELL MARGARET A [US]; CHAMBERS STUART M [US]; BOLES NATHAN C [US]; LIN KUAN-YIN K [US]
IN - TIERNEY MEGAN P [US]; GOODELL MARGARET A [US]; CHAMBERS STUART M [US]; BOLES NATHAN C [US]; LIN KUAN-YIN K [US]
TI - HEMATOPOIETIC FINGERPRINTS: METHODS OF USE
AB - The present invention is related to the discovery that the detection of one or more biomarkers in a body sample can identify hematopoietic progenitors that are precursors to a specific blood cell lineage. The methods of the present invention are also directed to the detection of the dysregulation of these biomarkers as a diagnostic assay for the certain disease states, such as cancer.

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PN - US2009110668 A1 20090430
PD - 2009-04-30
PA - UNIV LOUISVILLE RES FOUND [US]
IN - ZUBA-SURMA EWA K [US]; DAWN BUDDHADEB [US]; ABDEL-LATIF AHMED [US]; BOLLI ROBERTO [US]
TI - SUBPOPULATIONS OF BONE MARROW-DERIVED ADHERENT STEM CELLS AND METHODS OF USE THEREFOR
AB - The presently disclosed subject matter provides an isolated subpopulation of bone marrow-derived adherent stem cells that are purified from bone marrow-derived adherent cells. Also provided are methods for isolating the subpopulation of bone marrow-derived adherent stem cells from bone marrow-derived adherent cells and for using the isolated subpopulation of bone marrow-derived adherent stem cells for treating tissue and/or organ damage in a subject.

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PN - US2009092653 A1 20090409
PD - 2009-04-09
PA - ETHICON INC [US]
IN - COLTER DAVID C [US]; GOSIEWSKA ANNA [US]
TI - REPAIR AND REGENERATION OF RENAL TISSUE USING HUMAN UMBILICAL CORD TISSUE-DERIVED CELLS
AB - Methods for treating a patient having a disease or damage to at least one kidney are provided. The methods comprise administering cells obtained from human umbilical cord tissue, or administering pharmaceutical compositions comprising such cells or prepared from such cells. When administered, the cells promote and support the repair and regeneration of the diseased or damaged

kidney tissue in the patient. Pharmaceutical compositions for use in the inventive methods, as well as kits for practicing the methods are also provided.

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PN - WO2009047168 A1 20090416
PD - 2009-04-16
PA - AVISO GMBH [DE]; SCHAEFER UTE [DE]
IN - SCHAEFER UTE [DE]
TI - SEPARATION OF COCULTIVATED CELL POPULATIONS
AB - The invention relates to a process and to the use of an apparatus for separating cocultivated cell populations.

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PN - US2009104158 A1 20090423
PD - 2009-04-23
PA - MORAGA BIOTECHNOLOGY CORP [US]
IN - YOUNG HENRY E [US]; BLACK ASA [US]
TI - Non-Embryonic Totipotent Blastomere-Like Stem Cells And Methods Therefor
AB - Non-embryonic blastomere-like totipotent stem cells are disclosed. Most preferably, such cells are obtained from various tissues of postnatal mammals (e.g., using tissue biopsied from the mammal), are smaller than 1 mm, have normal karyotype, and do not spontaneously differentiate in serum-free medium without differentiation inhibitors. These non-embryonic blastomere-like totipotent stem cells typically express CD66e, CEA-CAM-1 and telomerase, but do not typically express CD10, SSEA-1, SSEA-3, and SSEA-4. Such blastomere-like totipotent cells can be differentiated into ectodermal, mesodermal, or endodermal tissues, including placental tissues and germ cells. Moreover, when implanted into a mammal, such cells will not be teratogenic.

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PN - US2009113564 A1 20090430
PD - 2009-04-30
IN - ABUIN ALEJANDRO [US]; BORROMEO MARK DOMINIC [US]; COMBS KATHERIN E [US]; CULBERTSON LING LING [US]; DING ZHI-YONG [US]; EDWARDS JOEL [US]; FAN LIANGFEN [US]; GIRGIS ROSEMARY [US]; GREEN LESLIE JANE [US]; HORNER ALLISON ANNE BYERS [US]; MASSEY ERIN MARIE [US]; MCLAIN DINA REBECCA [US]; MINZE LAURIE JEANETTE [US]; MONTGOMERY CHARLES [US]; PAYNE BOBBY JOE [US]; RANGEL CAROLINA [US]; SANDS ARTHUR T [US]; SEVAUX TRACY ELLEN WILLIS [US]; SHI ZHENG-ZHENG [US]; SPARKS MARY JEAN [US]; STALA JOY ANNE [US]; VOGEL PETER [US]; ZAMBROWICZ BRIAN [US]
TI - Genetically Engineered and Phenotyped Mice and Stem Cell Clones for Producing the Same
AB - The current invention relates to genetically engineered mice, cells derived from those mice, and polynucleotides and polypeptides corresponding to genes affected by the engineered mutation. The invention also relates to antibodies raised in a mouse of the invention. The invention further provides methods for using the mice, cells, polynucleotides, polypeptides and antibodies of the invention.

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PN - US2009104695 A1 20090423
PD - 2009-04-23
IN - SHUSHAN ETTI BEN [IL]; TANNENBAUM SHELLY [IL]; ITSYKSON PAVEL [IL]; BANIN EYAL [IL]; REUBINOFF BENJAMIN [IL]
TI - Stem Cells Culture Systems
AB - The present invention concerns systems and methods for providing human cell cultures. Specific embodiments of the invention relate to cultures of feeder cells for use in stem cell technology, as well as cultures, culture systems and methods for maintenance and propagating of stem cells in an undifferentiated state as well as for the development of somatic cells cultures from stem cells, the somatic cell cultures being free of extraembryonic cells.

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PN - US2009104626 A1 20090423
PD - 2009-04-23
PA - UNIV NORTH CAROLINA
IN - KUBOTA HIROSHI [US]; REID LOLA M [US]
TI - METHODS OF ISOLATING BIPOTENT HEPATIC PROGENITOR CELLS
AB - A method of obtaining a mixture of cells enriched in hepatic progenitors is developed which comprises methods yielding suspensions of a mixture of cell types, and selecting those cells that are classical MHC class I antigen(s) negative and ICAM-1 antigen positive. The weak or dull expression of nonclassical MHC class I antigen(s) can be used for further enrichment of hepatic progenitors. Furthermore, the progenitors can be selected to have a level of side scatter, a measure of granularity or cytoplasmic droplets, that is higher than that in non-parenchymal cells, such as hemopoietic cells, and lower than that in mature parenchymal cells, such as hepatocytes. Furthermore, the progeny of the isolated progenitors can express alpha-fetoprotein and/or albumin and/or CK19. The hepatic progenitors, so isolated, can grow clonally, that is an entire population of progeny can be derived from one cell. The clones of progenitors have a growth pattern in culture of piled-up aggregates or clusters. These methods of isolating the hepatic progenitors are applicable to any vertebrates including human. The hepatic progenitor cell population is expected to be useful for cell therapies, for bioartificial livers, for gene therapies, for vaccine development, and for myriad toxicological, pharmacological, and pharmaceutical programs and investigations.

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PN - US2009104631 A1 20090423
PD - 2009-04-23
PA - UNIV CALIFORNIA [US]; AGENSYS INC [US]
IN - REITER ROBERT E [US]; WITTE OWEN N [US]; SAFFRAN DOUGLAS C [US]; JAKOBOVITS AYA [US]
TI - PSCA: PROSTATE STEM CELL ANTIGEN AND USES THEREOF
AB - The invention provides a novel prostate cell-surface antigen, designated Prostate Stem Cell Antigen (PSCA), which is widely over-expressed across all stages of prostate cancer, including high grade prostatic intraepithelial neoplasia (PIN), androgen-dependent and androgen-independent prostate tumors.

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PN - US2009104163 A1 20090423
PD - 2009-04-23
PA - ATHERSYS INC [US]; UNIV OREGON HEALTH & SCIENCE [US]
IN - DEANS ROBERT [US]; VANT T HOF WOUTER [US]; MAZIARZ RICHARD [US]; KOVACSOVICS MAGDALENA [US]; STREETER PHILIP [US]
TI - Immunomodulatory Properties of Multipotent Adult Progenitor Cells and Uses Thereof
AB - Isolated cells are described that are not embryonic stem cells, not embryonic germ cells, and not germ cells. The cells can differentiate into at least one cell type of each of at least two of the endodermal, ectodermal, and mesodermal lineages. The cells do not provoke a harmful immune response. The cells can modulate immune responses. As an example, the cells can suppress an immune response in a host engendered by allogeneic cells, tissues, and organs. Methods are described for using the cells, by themselves or adjunctively, to treat subjects. For instance, the cells can be used adjunctively for immunosuppression in transplant therapy. Methods for obtaining the cells and compositions for using them also are described.

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PN - US2009104160 A1 20090423
PD - 2009-04-23
PA - MORAGA BIOTECHNOLOGY CORP [US]
IN - YOUNG HENRY E [US]; BLACK ASA [US]
TI - Mobilization of Stem Cells After Trauma and Methods Therefor
AB - Methods are presented in which release of stem cells from skeletal muscle is quantitated and correlated with severity of a disease or trauma, a future treatment option, prognosis, and/or anticipated time to recovery. Most preferably, the stem cell is a BLSC and/or an ELSC, and the stem cell isolation for the cell count is performed using sedimentation or filtration as principal

separation step, thereby avoiding commonly used complicated, expensive, and time-consuming processes such as antibody-based separation and fluorescence-activated cell sorting.

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PN - US2009098562 A1 20090416
PD - 2009-04-16
IN - GOSTJEVA ELENA V [US]; THILLY WILLIAM G [US]
TI - Methods for identifying stem cells based on nuclear morphotypes
AB - Methods for identifying stem cells and other cells specific to embryogenesis and carcinogenesis, classifying tissue samples, diagnosing precancerous and cancerous or atherosclerotic lesions, testing the value of anticancer agents, discovering macromolecules specifically expressed in particular cell types, using stem cells in restorative tissue therapy as well as methods for preparing tissue samples so heteromorphic nuclear morphotypes remain intact are disclosed.

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PN - US2009092625 A1 20090409
PD - 2009-04-09
PA - GEN HOSPITAL CORP [US]
IN - SCADDEN DAVID T [US]; CALVI LAURA M [US]; ADAMS GREGOR [US]; KRONENBERG HENRY [US]
TI - PARATHYROID HORMONE RECEPTOR ACTIVATION AND HEMATOPOIETIC PROGENITOR CELL EXPANSION
AB - The invention relates to methods for manipulating hematopoietic progenitor cells and related products. In one aspect the invention relates to the use of agents that activate a PTH/PTHrP receptor to enhance the growth and maintenance of hematopoietic progenitor cells in vivo and in vitro, to enhance mobilization of hematopoietic stem cells, to improve the efficiency of targeting cells to the bone marrow, and/or to modulate hematopoietic progenitor cell function.

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PN - US2009093052 A1 20090409
PD - 2009-04-09
IN - YIN AMY H [US]; MIRAGLIA SHERI [US]; BUCK DAVID W [US]
TI - Human Hematopoietic Stem And Progenitor Antigen And Methods For Its Use
AB - A hematopoietic progenitor cell antigen and reagents, notably antibodies, that specifically bind to the antigen are provided. Expression of the antigen is highly tissue specific. It is only detected on a subset of hematopoietic progenitor cells derived from human bone marrow, fetal bone marrow and liver, cord blood and adult peripheral blood. The subset of cells recognized by AC133 is CD34^{bright} and contains substantially all of the CFU-GM activity present in the CD34⁺ population. This highly specific distribution of AC133 makes it exceptionally useful as a reagent for isolating and characterizing human hematopoietic progenitor and stem cells. Cells selected for expression of AC133 antigen can be further purified by selection for other hematopoietic stem cell and progenitor cell markers.

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PN - US2009092586 A1 20090409
PD - 2009-04-09
IN - VERFAILLIE CATHERINE M [BE]; VELEZ MIGUEL ANGEL BARAJAS [ES]; HEREMANS YVES PIERRE [BE]
TI - DIFFERENTIATION OF NON-EMBRYONIC STEM CELLS TO CELLS HAVING A PANCREATIC PHENOTYPE
AB - The invention provides methods for differentiating non-embryonic multipotent stem cells along the pancreatic lineage. The present invention further provides non-embryonic multipotent stem cells and progeny derived therefrom to provide pancreatic cells to a subject.

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PN - US2009093056 A1 20090409
PD - 2009-04-09
PA - TECHNION RES & DEV FOUNDATION [IL]

IN - ITSKOVITZ-ELDOR JOSEPH [IL]; COHEN SHAHAR [IL]
TI - Adult Stem Cell-Derived Connective Tissue Progenitors for Tissue Engineering
AB - Methods of generating and expanding proliferative, multipotent connective tissue progenitor cells from adult stem cells are provided. Also provided are methods of generating functional tendon grafts in vitro and bone, cartilage and connective tissues in vivo using the isolated cell preparation of connective tissue progenitor cells.

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PN - US2009087851 A1 20090402
PD - 2009-04-02
IN - RAO MAHENDRA S [US]; MAYER-PROSCHEL MARGOT [US]; KALYANI ANJALI J [US]
TI - Lineage-Restricted Neuronal Precursors
AB - A self-renewing restricted stem cell population has been identified in developing (embryonic day 13.5) spinal cords that can differentiate into multiple neuronal phenotypes, but cannot differentiate into glial phenotypes. This neuronal-restricted precursor (NRP) expresses highly polysialated or embryonic neural cell adhesion molecule (E-NCAM) and is morphologically distinct from neuroepithelial stem cells (NEP cells) and spinal glial progenitors derived from embryonic day 10.5 spinal cord. NRP cells self renew over multiple passages in the presence of fibroblast growth factor (FGF) and neurotrophin 3 (NT-3) and express a characteristic subset of neuronal epitopes. When cultured in the presence of RA and the absence of FGF, NRP cells differentiate into GABAergic, glutaminergic, and cholinergic immunoreactive neurons. NRP cells can also be generated from multipotent NEP cells cultured from embryonic day 10.5 neural tubes. Clonal analysis shows that E-NCAM immunoreactive NRP cells arise from an NEP progenitor cell that generates other restricted CNS precursors. The NEP-derived E-NCAM immunoreactive cells undergo self renewal in defined medium and differentiate into multiple neuronal phenotypes in mass and clonal culture. Thus, a direct lineal relationship exists between multipotential NEP cells and more restricted neuronal precursor cells present in vivo at embryonic day 13.5 in the spinal cord. Methods for treating neurological diseases are also disclosed.

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PN - US2009081189 A1 20090326
PD - 2009-03-26
PA - AXARON BIOSCIENCE AG
IN - SCHNEIDER ARMIN [DE]; MAURER MARTIN H [DE]; FELDMANN ROBERT E [DE]; KUSCHINSKY WOLFGANG [DE]
TI - Process for in vitro differentiation of neuronal stem cells or of cells derived from neuronal stem cells
AB - The process for in vitro differentiation of neuronal stem cells comprises contacting the cells with a substance which inhibits a reaction of the Wnt signal transduction pathway, and culturing of said cells under conditions which enable said cells to propagate and/or differentiate. In a preferred embodiment of the process, the neuronal stem cells differentiate into brain cell-like cells.

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PN - US2009081205 A1 20090326
PD - 2009-03-26
PA - STEM CELL THERAPEUTICS CORP [CA]
IN - WEISS SAMUEL [CA]; GREGG CHRISTOPHER [US]; DAVIDOFF ALLEN [CA]; TUCKER JOSEPH [CA]
TI - CONTINUOUS DOSING REGIMENS FOR NEURAL STEM CELL PROLIFERATING AGENTS AND NEURAL STEM CELL DIFFERENTIATING AGENTS
AB - The present invention provides effective dosing regimes for neural stem cell proliferating agents, kits containing effective dosing regimes for neural stem cell proliferating agents, and uses thereof. In particular, neural stem cell proliferating agents, such as hCG, prolactin and EPO are delivered to mammalian subjects at low doses in a continuous fashion over several days, as opposed to delivery of high doses in a short period of time.

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PN - US2009081170 A1 20090326

PD - 2009-03-26
IN - RILEY PAUL [GB]
TI - Cardiac progenitor cells
AB - The present invention relates to the field of progenitor cells, and in particular to the field of cardiac progenitor cells. More particularly, the present invention pertains to the identification of a population of progenitor cells in the adult mammalian heart that is capable of giving rise to significant levels of de novo cardiomyocytes with the potential to replenish injured muscle post-infarction and/or promote neovascularisation to bring about complete cardiac regeneration. Accordingly, the present invention relates to methods for generating a population of mammalian post-natal epicardium derived cells (EPDCs), populations of EPDCs so generated, and methods of using same.

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PN - US2009081169 A1 20090326
PD - 2009-03-26
IN - EGRISE DOMINIQUE [BE]; GANGJI VALERIE [BE]; HAUZEUR JEAN-PHILIPPE [BE]; LAMBERMONT MICHELINE [BE]; TOUNGOUZ MICHEL [BE]
TI - METHOD FOR OSTEOGENIC DIFFERENTIATION OF BONE MARROW STEM CELLS (BMSC) AND USES THEREOF
AB - Methods for obtaining osteoprogenitors, osteoblasts or osteoblast phenotype cells, as well as cell populations including such cells, from human bone marrow stem cells in vitro or ex vivo are disclosed. Bone marrow stem cells are contacted with human serum or plasma and a growth factor or a biologically active variant or derivative thereof. In addition, osteoprogenitor, osteoblast or osteoblast phenotype cell types and cell populations are provided. The cell populations may include additional cell types, such as endothelial cells or progenitors. The osteoprogenitors, osteoblasts or osteoblast phenotype cells may be used in therapy, particularly bone therapy.

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PN - US2009081784 A1 20090326
PD - 2009-03-26
IN - VODYANYK MAKSYM A [US]; YU JUNYING [US]; THOMSON JAMES A [US]; SLUKVIN IGOR I [US]
TI - GENERATION OF CLONAL MESENCHYMAL PROGENITORS AND MESENCHYMAL STEM CELL LINES UNDER SERUM-FREE CONDITIONS
AB - Methods for obtaining multipotent mesenchymal stem cells under serum-free conditions and methods for identifying multipotent mesenchymal progenitor cells are disclosed.

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PN - US2009068734 A1 20090312
PD - 2009-03-12
IN - ENDO FUMIO [JP]; OKUMURA KENJI [JP]; NAKAMURA KIMITOSHI [JP]
TI - Human salivary gland-origin stem cell
AB - A novel human stem cell which can be differentiated to cells constituting a plurality of human organs including human liver is disclosed. The human stem cell according to the present invention is originated from human salivary gland, which is CD49f-positive, and which can be differentiated to (1) a nestin-positive and albumin-positive cell, (2) an insulin-positive cell and (3) a glucagon-positive cell by culture in vitro.

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PN - US2009075926 A1 20090319
PD - 2009-03-19
IN - BAMDAD CYNTHIA C [US]
TI - METHOD FOR IDENTIFYING AND MANIPULATING CELLS
AB - The present application discloses a method of isolating or selecting stem cells from a mixed population containing stem cells, which includes the population of cells with a ligand specific for a truncated MUC1 receptor, wherein the presence of the truncated MUC1 receptor on the cells indicates that they are stem cells.

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PN - US2009074728 A1 20090319
PD - 2009-03-19
IN - GRONTHOS STAN [AU]; ZANNETTINO ANDREW CHRISTOPHER WILLIAM [AU];
SIMMONS PAUL JOHN [AU]
TI - Isolation of adult multipotential cells by tissue non-specific alkaline phosphatase
AB - The present invention relates to the use of tissue non-specific alkaline phosphatase (TNAP) as a marker for identifying and/or isolating adult multipotential cells. The present invention also relates to cell populations enriched by methods of the present invention and therapeutic uses of these cells.

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PN - US2009076019 A1 20090319
PD - 2009-03-19
PA - MOUNT SINAI HOSPITAL CORP [CA]; HSC RES DEV LP [CA]
IN - TYERS MIKE [CA]; DIAMANDIS PHEDIAS [CA]; DIRKS PETER B [CA]
TI - METHODS FOR TREATING NEUROLOGICAL DISORDERS OR DAMAGE
AB - A clonogenic neurosphere assay is described that carries out high throughput screens (HTS) to identify potent and/or selective modulators of proliferation, differentiation and/or renewal of neural precursor cells, neural progenitor cells and/or self-renewing and multipotent neural stem cells (NSCs). Compositions comprising the identified modulators and methods of using the modulators and compositions, in particular to treat neurological disorders (e.g. brain or CNS cancer) or damage are also disclosed.

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PN - US2009074782 A1 20090319
PD - 2009-03-19
IN - GURNEY AUSTIN [US]
TI - Compositions and Methods for Treating and Diagnosing Cancer
AB - The present invention relates to compositions and methods for characterizing, diagnosing and treating cancer. In particular, the present invention identifies LGR5 as a protein over-expressed in solid tumor stem cell. The present invention further identifies an interaction between RSPO1 and LGR5 as an alternative pathway for the activation of beta-catenin signaling. In certain embodiments, the present invention provides biomolecules that disrupt functional signaling via a LGR protein, including, in certain embodiments, molecules that inhibit the interaction between one or more RSPO proteins and one or more LGR proteins, such as LGR5. In certain embodiments, the present invention provides methods of treating cancer comprising disrupting functional LGR signaling and inhibiting growth of a solid tumor comprising solid tumor stem cells.

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PN - US2009074731 A1 20090319
PD - 2009-03-19
IN - LIBRACH CLIFFORD L [CA]; YIE SHANGMIAN [CA]; XIAO RONG [CA]
TI - METHOD OF ISOLATION AND USE OF CELLS DERIVED FROM FIRST TRIMESTER UMBILICAL CORD TISSUE
AB - A method of isolating a pluripotent cell from human umbilical cord is described herein. The method involves collecting a sample of umbilical cord from fetal tissue obtained at less than 20 weeks of gestation, for example a first trimester umbilical cord. The sample is treated to obtain isolated umbilical cord cells, after which the isolated umbilical cord cells are incubated. Stem cells obtained in this way can be differentiated for use in therapeutic applications.

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PN - US2009077680 A1 20090319
PD - 2009-03-19
IN - ABUIN ALEJANDRO [US]; EDWARDS JOEL [US]; MONTGOMERY CHARLES [US];
PAYNE BOBBY JOE [US]; RANGEL CAROLINA [US]; SANDS ARTHUR T [US]; SHI ZHENG-
ZHENG [US]; SPARKS MARY JEAN [US]; TOWNSEND TERESA GAIL [US]; GIRGIS ROSEMARY
[US]; HORNER ALLISON ANNE BYERS [US]; VOGEL PETER [US]; ZAMBROWICZ BRIAN [US]
TI - Genetically Engineered and Photyped Mice and Stem Cell Clones for Producing the Same

AB - The current invention relates to genetically engineered mice, cells derived from those mice, and polynucleotides and polypeptides corresponding to genes affected by the engineered mutation. The invention also relates to antibodies raised in a mouse of the invention. The invention further provides methods for using the mice, cells, polynucleotides, polypeptides and antibodies of the invention.

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PN - US2009074730 A1 20090319
PD - 2009-03-19
PA - OTTAWA HEALTH RESEARCH INST [CA]
IN - RUDNICKI MICHAEL A [CA]; KUANG SHIHUAN [CA]; HOLTERMAN CHET [CA]
TI - NOVEL STEM CELLS, NUCLEOTIDE SEQUENCES AND PROTEINS THEREFROM
AB - The present invention provides novel stem cells, nucleotide sequences and proteins therefrom. More specifically, the present invention provides Pax7+/Myf5- stem cells and methods for identifying and isolating them. Also provided is a MEGF10 nucleotide sequence and protein.

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PN - US2009075877 A1 20090319
PD - 2009-03-19
PA - NUVELO INC [US]
IN - TANG Y TOM [US]
TI - Methods and materials relating to stem cell growth factor-like polypeptides and polynucleotides
AB - The invention provides novel polynucleotides and polypeptides encoded by such polynucleotides and mutants or variants thereof that correspond to a novel human secreted stem cell growth factor-like polypeptides. Other aspects of the invention include vectors containing processes for producing novel human secreted stem cell growth factor-like polypeptides, and antibodies specific for such polypeptides.

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PN - US2009069246 A1 20090312
PD - 2009-03-12
PA - UNIV SOUTHERN CALIFORNIA [US]
IN - RODGERS KATHLEEN E [US]; DIZEREGA GERE S [US]
TI - Methods for promoting hematopoietic and mesenchymal cell proliferation and differentiation
AB - The present invention provides methods, improved cell culture medium and kits for promoting hematopoietic and mesenchymal stem and lineage-specific cell proliferation and differentiation by growth in the presence of angiotensinogen, angiotensin I (AI), AI analogues, AI fragments and analogues thereof, angiotensin II (AII), AII analogues, AII fragments or analogues thereof or AII AT2 type 2 receptor agonists, either alone or in combination with other growth factors and cytokines.

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PN - US2009069246 A1 20090312
PD - 2009-03-12
PA - UNIV SOUTHERN CALIFORNIA [US]
IN - RODGERS KATHLEEN E [US]; DIZEREGA GERE S [US]
TI - Methods for promoting hematopoietic and mesenchymal cell proliferation and differentiation
AB - The present invention provides methods, improved cell culture medium and kits for promoting hematopoietic and mesenchymal stem and lineage-specific cell proliferation and differentiation by growth in the presence of angiotensinogen, angiotensin I (AI), AI analogues, AI fragments and analogues thereof, angiotensin II (AII), AII analogues, AII fragments or analogues thereof or AII AT2 type 2 receptor agonists, either alone or in combination with other growth factors and cytokines.

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PN - US2009069903 A1 20090312

PD - 2009-03-12
PA - HISTOGENICS CORP [US]
IN - SHORTKROFF SONYA [US]; KHOURY JOSEPH [US]; TARRANT LAURENCE J B [US]; CLAESSEON HANS P I [US]; SMITH ROBERT LANE [US]
TI - Method For Improvement Of Differentiation Of Mesenchymal Stem Cells Using A Double-Structured Tissue Implant
AB - A double-structured tissue implant (DSTI) and a method for preparation and use thereof for implantation into tissue defects. The double-structured tissue implant for differentiation, growth and transformation of cells, stem cells, mesenchymal stem cells and bone marrow stem cells. DSTI comprising a primary scaffold and a secondary scaffold consisting of a soluble collagen solution in combination with a non-ionic surfactant generated and positioned within the primary scaffold.

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PN - US2009060886 A1 20090305
PD - 2009-03-05
IN - ALT ECKHARD [DE]
TI - TRANSLUMINAL APPLICATION OF ADULT STEM CELLS FOR BODY ORGAN TISSUE REPAIR
AB - A method for repairing tissue of a selected organ from among heart, brain, liver, pancreas, kidney, glands, and muscles in a patient's body. Adult stem cells that have the capability to repair tissue of the selected organ are recovered by harvesting from the patient's body. The harvested stem cells are then intraluminally applied through a designated natural body vessel. During the time the stem cells are being applied to the targeted tissue downstream, the designated vessel or duct is selectively occluded to increase concentration and pressure of the applied adult stem cells by the vessel.

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PN - US2009060885 A1 20090305
PD - 2009-03-05
PA - MEDIPOST CO LTD [KR]
IN - HA CHUL-WON [KR]; YANG YOON-SUN [KR]; YANG SUNG-EUN [KR]
TI - Composition For Treatment of Articular Cartilage Damage
AB - Disclosed is a composition for the treatment of cartilage or bone damage or loss or defect. The composition comprises mesenchymal stem cells separated from umbilical cord blood and/or mesenchymal stem cells proliferated and/or differentiated. The composition also comprise chondrocytes and/or chondroblasts, or osteocytes and/or osteoblasts, differentiated from the mesenchymal stem cells separated from the umbilical cord blood.

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PN - US2009060884 A1 20090305
PD - 2009-03-05
IN - MAZZOCCA AUGUSTUS D [US]; MCCARTHY MARY BETH [US]
TI - CONCENTRATION OF STEM CELLS OBTAINED DURING ORTHOPAEDIC SURGERIES
AB - Methods for isolating and concentrating bone marrow stromal cells drawn from various surgical sites (for example, the proximal humeral head during rotator cuff repair, or the distal femur during ACL surgery) during arthroscopic or open orthopaedic surgery. The pluripotent cells obtained from the bone marrow aspirate can then be reimplanted during the same surgery to improve healing.

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PN - US2009062876 A1 20090305
PD - 2009-03-05
IN - COHEN IRA S [US]; ROSEN AMY B [US]; BRINK PETER R [US]; GAUDETTE GLENN [US]; ROSEN MICHAEL R [US]; ROBINSON RICHARD B [US]
TI - Quantum dot labeled stem cells for use in providing pacemaker function
AB - The present invention provides methods and compositions relating to the labeling of target cells with nanometer scale fluorescent semiconductors referred to as quantum dots (QDs). Specifically, a delivery system is disclosed based on the use of negatively charged QDs for delivery of

a tracking fluorescent signal into the cytosol of target cells via a passive endocytosis-mediated delivery process. In a specific embodiment of the invention the target cell is a stem cell, preferably a mesenchymal stem cell (MSC). Such labeled MSCs provide a means for tracking the distribution and fate of MSCs that have been genetically engineered to express, for example, a hyperpolarization-activated cyclic nucleotide-gated ("HCN") channel and administered to a subject to create a biological pacemaker. The invention is based on the discovery that MSCs can be tracked in vitro for up to at least 6 weeks. Additionally, QDs delivered in vivo can be tracked for up to at least 8 weeks, thereby permitting for the first time, the complete 3-D reconstruction of the locations of all MSCs following administration into a host.

EMBRYONIC/ PLURIPOTENT STEM CELLS -30 Documents

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PN - WO2009055396 A1 20090430
PD - 2009-04-30
PA - SPECIALIZED STEM CELLS LLC [US]; RUDY-REIL DIANE ELIZABETH [US]
IN - RUDY-REIL DIANE ELIZABETH [US]
TI - INDUCTION OF PLURIPOTENT STEM CELLS INTO MESODERMAL LINEAGES
AB - The present invention provides a method of inducing mesoderm derived cells from pluripotent stem cells. In contrast to methods known in the art that are often designed to replicate in vivo events of mesoderm induction, the present invention provides a unique, yet simple, method whereby pluripotent stem cells are mesodermally primed in the presence of factors that concomitantly inhibit the spontaneous differentiation of endoderm and ectoderm during expansion and suspension steps. Exposure and/or adherence of primed aggregates to an extracellular matrix that promotes the commitment and survival of induced mesoderm progenitors, followed by exposure to various mesoderm associated factors, allows for the subsequent induction of such cells into terminally differentiated lineages, such as cardiomyocytes. End products of this induction system will ultimately provide an unlimited source of mesoderm-derived cell types for therapeutic and pharmacological purposes.

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PN - US2009104696 A1 20090423
PD - 2009-04-23
IN - ROBINS ALLAN J [US]; SCHULZ THOMAS C [US]
TI - Methods and Compositions for Feeder-Free Pluripotent Stem Cell Media Containing Human Serum
AB - The present invention provides compositions and methods for the culture and maintenance of pluripotent stem cells. More particularly, the present invention provides for compositions and methods for culturing, maintaining, growing and stabilizing primate pluripotent stem cells in a feeder-free defined media further comprising human serum, or a soluble attachment component of the human serum, for promoting cell attachment.

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PN - WO2009051671 A1 20090423
PD - 2009-04-23
PA - ADVANCED CELL TECH INC [US]; MALCUIT CHRISTOPHER [US]; LEMIEUX LINDA [US]; HOLMES WILLIAM [US]; HUERTAS PEDRO [US]; VILNER LUCY [US]
IN - MALCUIT CHRISTOPHER [US]; LEMIEUX LINDA [US]; HOLMES WILLIAM [US]; HUERTAS PEDRO [US]; VILNER LUCY [US]
TI - IMPROVED METHODS OF PRODUCING RPE CELLS AND COMPOSITIONS OF RPE CELLS
AB - The present invention provides improved methods for producing RPE cells from human embryonic stem cells or from other human pluripotent stem cells. The invention also relates to human retinal pigmented epithelial cells derived from human embryonic stem cells or other human multipotent or pluripotent stem cells. hRPE cells derived from embryonic stem cells are molecularly distinct from adult and fetal-derived RPE cells, and are also distinct from embryonic stem cells. The hRPE cells described herein are useful for treating retinal degenerative diseases.

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PN - WO2009050694 A1 20090423
PD - 2009-04-23PA - TECHNION RES & DEV FOUNDATION [IL]; YIRME GALIA [IL]; ITSKOVITZ-ELDOR JOSEPH [IL]
IN - YIRME GALIA [IL]; ITSKOVITZ-ELDOR JOSEPH [IL]
TI - METHODS OF GENERATING EMBRYOID BODIES AND USES OF SAME
AB - Methods of generating embryoid bodies (EBs) by culturing embryonic stem cells (ESCs) under static conditions followed by culturing the cells under dynamic conditions using e.g., a Glass Bulb-shaped Impeller (GBI) or shaking a culture vessel are provided. Also provided are methods of generating expanded and/or differentiated cells from the EBs of the invention and methods of using same for treating disorders requiring cell replacement therapy.

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PN - WO2009050657 A2 20090423
PD - 2009-04-23
PA - ORBAN TAMAS [HU]; IZSVAK ZSUZSANNA [HU]; NEMET KATALIN [HU]; APATI AGOTA [HU]; SARKADI BALAZS [HU]
IN - ORBAN TAMAS [HU]; IZSVAK ZSUZSANNA [HU]; NEMET KATALIN [HU]; APATI AGOTA [HU]; SARKADI BALAZS [HU]
TI - GENETICALLY MODIFIED STEM CELLS AND METHODS FOR IDENTIFYING TISSUES DIFFERENTIATED THEREFROM
AB - Genetically modified stem cells and the selection of cells differentiated therefrom are disclosed. Particularly, the herein disclosed invention relates to stem cells or cells differentiated therefrom containing a copy of a stably inheritable expression construct that is suitable for the expression of transgenes in stem cells, wherein said construct comprises at least a double-feature constitutive promoter being operable both in stem cells and in differentiated tissues, the expression level thereof being subject to a tissue or cell type specific regulation in differentiated cells, and, optionally, under the control of said promoter, a transgene, wherein said transgene is expressed in the stem cell. Furthermore methods are disclosed to produce such stem cells, as well as specific uses of said stem cells in assay methods and in human therapy and in veterinary practice.

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PN - EP2052089 A1 20090429
PD - 2009-04-29
PA - CHUNDSELL MEDICALS AB [SE]
IN - LI CHUNDE [SE]
TI - EMBRYONIC STEM CELL MARKERS FOR CANCER DIAGNOSIS AND PROGNOSIS
AB - A method of predicting the development of a cancer in a patient, comprises procuring a sample of tumour tissue from the patient, determining the expression pattern of embryonic stem cell genes in the tissue, comparing the expression pattern with the corresponding expression pattern of embryonic stem cell genes in tumour tissue of reference patients with known disease histories. Also disclosed are microarrays and DNA/RNA probes for use in the method.

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PN - WO2009048675 A1 20090416
PD - 2009-04-16
PA - LIFESCAN INC [US]; O'NEIL JOHN J [US]
IN - O'NEIL JOHN J [US]
TI - PLURIPOTENT STEM CELL DIFFERENTIATION BY USING HUMAN FEEDER CELLS
AB - The present invention relates to the field of pluripotent stem cell differentiation. The present invention provides methods for the differentiation of pluripotent stem cells on a human feeder cell layer. In particular, the present invention provides an improved method for the differentiation of pluripotent stem cells into pancreatic endocrine cells using a human feeder cell layer.

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PN - GB2453661 A 20090415

PD - 2009-04-15
PA - ANTOXIS LTD [GB]
IN - MCPHAIL DONALD BARTON [GB]; COOK GRAEME JAMES [GB]; JOHNSTONE ANDREW SCOTT [GB]
TI - In vitro preservation of living animal cells and compounds suitable for use in the preservation of living animal cells
AB - A method of in vitro preservation of living animal cells in a viable non-terminally differentiated state (such as embryonic stem cells (ESC), adult stem cells and induced pluripotent cells (iPS)) the method comprising contacting the cells with a compounds of Formula I or salts thereof: <EMI ID=1.1 HE=67 WI=93 LX=335 LY=1023 TI=CF> wherein X is O, S, NH or N-C1-6alkyl; n is 0 or 1; R12 is OH or a glycosidic functional group; R10, R11, R12 and R14 are H or substituents; one of R20 and R23 is an optionally substituted C2-30 saturated or unsaturated hydrocarbon chain unless R20-R23 form a 5-7-membered unsaturated ring including C1 and C2 in which case the optionally substituted C2-30 saturated or unsaturated hydrocarbon chain is attached to this ring; the remaining groups are as defined in the description. Per se compounds of formula (Ia), the definition of which falls within the scope of formula I, are also outlined.

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PN - WO2008011524 A2 20080124
PD - 2008-01-24
PA - BURT RICHARD [US]
IN - BURT RICHARD [US]
TI - METHOD OF USING MITOTICALLY INACTIVATED STEM CELLS FOR DAMAGED TISSUE REPAIR
AB - The present invention is directed to the use of mitotically and/or lethally inactivated stem cells for the repair of damaged organs and/or tissues. Stem cells are mitotically and/or lethally inactivated and transplanted into damaged tissue. Any form of ex vivo inactivation of stem cells may be used such that the stem cells cannot undergo mitosis or cell division before in vivo application. Mitotically and/or lethally inactivated stem may be used to ameliorate numerous disease, injury, and/or degenerative conditions in different types of organs and/or tissues.

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PN - EP2049654 A2 20090422
PD - 2009-04-22
PA - UNIV EDINBURGH [GB]
IN - YING QI-LONG [US]; SMITH AUSTIN GERARD [GB]
TI - PLURIPOTENT CELLS FROM RAT AND OTHER SPECIES
(No abstract available)

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PN - WO2009045075 A2 20090409
PD - 2009-04-09
PA - KOREA RES INST OF BIOSCIENCE [KR]; HONG HYO JEONG [KR]; SON YEON SUNG [KR]
IN - HONG HYO JEONG [KR]; SON YEON SUNG [KR]
TI - A MONOCLONAL ANTIBODY SPECIFIC TO HUMAN EMBRYONIC STEM CELL, A HYBRIDOMA SECRETING THE SAME AND A METHOD FOR DETECTING OR ISOLATING NON-DIFFERENCED EMBRYONIC STEM CELL
AB - Disclosed herein is the use of L1CAM, which is a marker protein of undifferentiated human embryonic stem (ES) cells. Also disclosed are an antibody binding specifically to L1CAM, a hybridoma secreting the antibody, and a method of detecting, identifying or isolating undifferentiated human ES cells using the antibody. Since antibodies binding specifically to L1CAM, including a novel antibody 4-63 according to the present invention, bind specifically to the L1CAM protein expressed on undifferentiated human ES cells, they are useful in the accurate analysis of characteristics of undifferentiated human ES cells and in isolating human ES cells for cell therapy.

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PN - EP2046946 A2 20090415
PD - 2009-04-15

PA - LIFESCAN INC [US]
IN - PELLEGRINO-GENSEY J LEE [US]; FRYER BENJAMIN [US]
TI - PLURIPOTENT STEM CELL CULTURE
AB - The present invention relates to the field of pluripotent stem cell culture media and to methods for culturing cells to produce such media. Furthermore, the present invention provides methods and materials for propagating pluripotent stem cells in a substantially undifferentiated state, with and without a feeder layer. Conditioned medium for the propagation of pluripotent stem cells is produced by a method comprising the steps of: a. Culturing cells that supply the conditioning factors, e.g. amniotic fluid cells or cells isolated from umbilical cord tissue, b. Adding a base medium to the cells that supply the conditioning factors, c. Exposing the base medium to the cells that supply the conditioning factors for a period of time sufficient to condition the medium, and d. Removing the conditioned medium.

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PN - WO2009041984 A1 20090402
PD - 2009-04-02
PA - CYTHERA INC [US]; AGULNICK ALAN [US]; D AMOUR KEVIN [US]; BAETGE EMMANUEL EDWARD [US]
IN - AGULNICK ALAN [US]; D AMOUR KEVIN [US]; BAETGE EMMANUEL EDWARD [US]
TI - METHODS FOR INCREASING DEFINITIVE ENDODERM PRODUCTION
AB - Disclosed herein are methods for increasing the production of definitive endoderm cells from pluripotent stem cells. Also disclosed herein are agents capable of increasing definitive endoderm cell production.

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PN - WO2009038879 A2 20090326
PD - 2009-03-26
PA - UNIV TEXAS [US]; OLSON ERIC [US]; FRANTZ DOUGLAS [US]; HSIEH JENNY [US]; MCKNIGHT STEVEN; SCHNEIDER JAY [US]
IN - OLSON ERIC [US]; FRANTZ DOUGLAS [US]; HSIEH JENNY [US]; MCKNIGHT STEVEN; SCHNEIDER JAY [US]
TI - STEM CELL DIFFERENTIATING AGENTS AND USES THEREFOR
AB - The present invention relates to screens for compounds that can induce stem cell differentiation. In addition, isoxazoles and sulfonyl hydrazones are identified as general classes of compounds that can induce differentiation of stem cells into cells of neuronal and cardiac fate, respectively.

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PN - WO2009036220 A2 20090319
PD - 2009-03-19
PA - UNIV CALIFORNIA [US]; LI RONALD [US]; SIU CHUNG-WAH [US]; LIEU DEBORAH K [US]; LIU JING [US]
IN - LI RONALD [US]; SIU CHUNG-WAH [US]; LIEU DEBORAH K [US]; LIU JING [US]
TI - COMPOSITIONS AND METHODS FOR IMPROVING THE FUNCTIONAL EFFICACY OF STEM CELL-DERIVED CARDIOMYOCYTES
AB - This invention provides an isolated stem cell that has been modified to provide, enhance or contain the functional characteristics of the sarcoplasmic reticulum (SR). The isolated stem cells are modified in one or more of the following manners: by expressing a calcium channel protein; by expressing a calcium pump protein such as the sarcro/endoplasmic reticulum Ca²⁺-ATPase (SERCA) protein; by inhibiting or downregulating expression of the Na⁺/Ca⁺ exchanger (NCX) protein; by expressing a calcium handling protein; by expressing a transverse (t)-tubule; and/or by expressing a transverse (t)-tubule biogenic protein. After the cell has been modified, it may be expanded to a substantially homogenous population of these cells or alternatively, differentiated to a more mature cell type. Compositions containing these cells and population of cells are also provided by this invention. The cells and compositions can be used to regenerate cardiac tissue, improve cardiac function, restore action potential of cardiac tissue; and treat or prevent cardiac malfunction. These methods can be achieved by administering an effective amount of a cell or population of cells

or tissue of this invention to a host in need thereof. The cells and population of cells can be used diagnostically to screen drug or other therapeutic candidates.

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PN - WO2009036170 A1 20090319
PD - 2009-03-19
PA - UNIV RUTGERS [US]; NOVIK ERIC [US]; YARMUSH MARTIN L [US]; SCHLOSS RENE [US]; SHARMA NRIPEN [US]
IN - NOVIK ERIC [US]; YARMUSH MARTIN L [US]; SCHLOSS RENE [US]; SHARMA NRIPEN [US]
TI - SYSTEM AND METHOD FOR LIVER CELL CULTURE AND MATURATION
AB - The present invention relates to systems and methods for maturation, proliferation and maintenance of function in cells presenting hepatocyte characteristics and differentiated from stem cells. The cells of the present invention may be generated from stem cell grown in collagen sandwich configuration in the presence of a morphogen (e.g. S-NitrosoAcetylPenicillamine (SNAP) or Oncostatin-M (OSM)).

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PN - WO2009035217 A1 20090319
PD - 2009-03-19
PA - CHABIOTECH CO LTD [KR]; CHUNG HYUNG-MIN [KR]; KIM JU-MI [KR]; LEE SOO-HONG [KR]; MOON SUNG-HWAN [KR]
IN - CHUNG HYUNG-MIN [KR]; KIM JU-MI [KR]; LEE SOO-HONG [KR]; MOON SUNG-HWAN [KR]
TI - PROCESS FOR DIFFERENTIATION OF VASCULAR ENDOTHELIAL PROGENITOR CELLS FROM EMBRYOID BODIES DERIVED FROM EMBRYONIC STEM CELLS USING HYPOXIC MEDIA CONDITION
AB - The present invention provides a process for differentiation of vascular endothelial progenitor cells from embryoid bodies derived from embryonic stem cells, the process comprising: (a) treating a culture medium comprising embryoid bodies derived from embryonic stem cells such that the concentration of oxygen dissolved in the culture medium is in the range of about 1 ppm to about 5 ppm; (b) culturing the culture medium prepared in step (a) in an incubator in which the oxygen (O₂) tension is equal to or less than about 15 % to differentiate the embryoid bodies into vascular endothelial progenitor cells; and (c) isolating the vascular endothelial progenitor cells from the culture medium obtained in step (b).

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PN - WO2009035216 A1 20090319
PD - 2009-03-19
PA - CHABIOTECH CO LTD [KR]; CHUNG HYUNG-MIN [KR]; MOON SUNG-HWAN [KR]; KIM JU-MI [KR]
IN - CHUNG HYUNG-MIN [KR]; MOON SUNG-HWAN [KR]; KIM JU-MI [KR]
TI - CELL DELIVERY SYSTEM FOR CELL THERAPY COMPRISING CELLS DERIVED FROM EMBRYONIC STEM CELLS
AB - The present invention provides a cell delivery system for cell therapy including cells derived from embryonic stem cells, which is formed by inserting the cells derived from embryonic stem cells into a carrier formed of matrigel. The cell delivery system is transplanted into the region of a living body, which does not directly in contact with a disease region; migration of the cells derived from embryonic stem cells from the transplanted region is inhibited by the carrier; and the cell delivery system is finally removed from the transplanted region. In the cell delivery system of the present invention, cell therapy is accomplished only by substances secreted from the cells derived from embryonic stem cells, such as cytokine, while the cells derived from embryonic stem cells are not directly in contact with a disease region. Therefore, the cell delivery system according to the present invention can avoid any formation of cancers and tumors, which may be caused from direct transplantation of cells derived from embryonic stem cells into a living body.

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PN - GB2453074 A 20090325
PD - 2009-03-25 PA - GERON CORP [US]; ROSLIN INST [GB]

IN - MAJUMDAR ANISH SEN [US]; HAY DAVID [GB]; CUI WEI [GB]; ZHAO DEBIAO [GB]
TI - Differentiation of primate pluripotent cells to hepatocyte-lineage cells
AB - Methods for differentiating primate pluripotent stem cells into hepatocyte-lineage cells are provided. In certain embodiments, the methods utilize sequential culturing of the primate pluripotent stem cells in certain growth factors to produce hepatocyte-lineage cells. In certain embodiments, the population of cells produced by the methods is further enriched for hepatocyte-lineage cells.

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PN - GB2453068 A 20090325
PD - 2009-03-25
PA - CELLARTIS AB [SE]
IN - HEINS NICO [SE]; KUEPPERS-MUNTHNER BARBARA [SE]; EDSBAGGE JOSEFINA [SE]
TI - Novel hepatocyte-like cells and hepatoblast-like cells derived from hbs cells
AB - The present invention relates to a novel hepatocyte-like cell population derived from hBS cells and to the potential use of such hepatocyte-like cells in e.g. medical treatment, drug screening and toxicity testing. Furthermore, the invention relates to hepatoblast-like cells that may have suitable characteristics so that they can be used for the same applications as the hepatocyte-like cells and that furthermore may be used in in vitro studies of hepatogenesis such as early hepatogenesis or hepato-regenerative disorders. Both the hepatocyte-like and the hepatoblast-like cells according to the invention express drug transporter and/or drug metabolising characteristics either at the gene or protein expression level.

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PN - EP2037963 A2 20090325
PD - 2009-03-25
PA - ETHICON INC [US]
IN - HARMON ALEXANDER M [US]; BROWN LAURA J [US]
TI - SOFT TISSUE REPAIR AND REGENERATION USING STEM CELL PRODUCTS
AB - Stem cells products having the potential to support cells of a soft tissue lineage, and methods of preparation and use of those stem cell products are disclosed. The invention also relates to methods for the use of such stem cells products in the regeneration and repair of soft tissue, and in cell-based therapies for soft tissue conditions.

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PN - GB2452456 A 20090304
PD - 2009-03-04
PA - UNIV SHEFFIELD [GB]
IN - OKAMOTO TESUJI [JP]; SATO DENRY [US]; FURUE MIHO [GB]; ANDREWS PETER [GB]
TI - Cell growth medium
AB - The invention relates to a method to culture primate embryonic stem cells in feeder and serum free conditions.

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PN - WO2009030944 A1 20090312
PD - 2009-03-12
PA - DUNNILL PETER [GB]; MASON CHRIS [GB]
IN - DUNNILL PETER [GB]; MASON CHRIS [GB]
TI - CELL PURIFICATION
AB - Methods for the purification of a particular mammalian cell type from a population including at least two cell types (for example, mouse embryonic stem cells, and mouse embryonic fibroblasts) are described. The methods make use of hydrophobic interaction chromatography to selectively retard the movement of one cell type within an expanded bed. The methods may also conveniently be used for the separation of stem cells from feeder cells for use in cellular therapies.

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PN - WO2009029983 A1 20090312
PD - 2009-03-12
PA - UNIV QUEENSLAND [AU]; UPTON ZEE [AU]; LEAVESLEY DAVID [AU];
RICHARDS SEAN DENNIS [AU]; CORMACK LUKE BRYANT [AU]
IN - UPTON ZEE [AU]; LEAVESLEY DAVID [AU]; RICHARDS SEAN DENNIS [AU];
CORMACK LUKE BRYANT [AU]
TI - A FEEDER CELL-FREE CULTURE MEDIUM AND SYSTEM
AB - A cell culture medium and system are provided which eliminates or at least reduces the need for feeder cells. The cell culture medium comprises one or more factors that are normally secreted and/or produced by a feeder cell and a synthetic chimeric protein comprising IGF-I and a portion of vitronectin. The cell culture medium is particularly suitable for propagating human embryonic stem cells and keratinocytes. This invention also relates to compositions and methods which utilize the cells cultured in the cell culture medium of the invention.

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PN - GB2452667 A 20090311
PD - 2009-03-11
PA - JE IL PHARMACEUTICAL CO LTD [KR]
IN - CHO MYUNG SOO [KR]; KIM MYUNG-HWA [KR]; MOON YOUNG IL [KR]; MOON SHIN YONG [KR]; OH SUN KYUNG [KR]; KIM HEE SUN [KR]; KIM DONG-WOOK [KR]
TI - Efficient generation of neural progenitors, neurons and dopaminergic neurons from human embryonic stem cells
AB - The present invention relates to a method for inducing the differentiation of neural progenitors, neurons, and dopaminergic neurons from human embryonic stem cells with high efficiency, in which neural selection can be performed by the selected media and physical methods. The invention has advantages such as higher efficiency, the effect of lowering cost and time, and maintenance of neural progenitors for a longer period of time, as compared to the known methods for inducing the differentiation into neural progenitors, neurons, and dopaminergic neurons. Accordingly, the method can stably generate cells used for treating Parkinson's disease or other nervous system diseases.

EPODOC / EPO

PN - EP2033513 A1 20090311
PD - 2009-03-11
PA - INST NAC INVESTIGACION INIA [ES]
IN - DE LA FUENTE MARTINEZ JULIO [ES]
TI - PROCEDURE FOR THE PREPARATION OF UNILAMELLAR VESICLES FOR CRYOPRESERVATION AND THE CULTURE OF STEM CELLS AND EMBRYOS
AB - In order to prepare the unilamellar low-density lipid vesicles, a presolution of vegetable lipids is first prepared; a suitable quantity of lipids, between 4 and 12 mg/ml, mixed with pure water, heated and stirred for about 30 minutes; the suspension obtained is kept at 50-60 DEG C for one hour and stirred for 2 minutes every 20 minutes. The high molecular weight hyaluronan is added to the lipidic suspension until a final concentration of 1 mg/ml is obtained, and the suspension of lipids and hyaluronan is emulsified by sonication, pumped using a homogenising valve and immediately made to go through a polycarbonate membrane, to obtain a final suspension with 70% of the particles in suspension having a size between 5 and 15 nm, which makes it possible to use the monolayer vesicles of HA and LDL for the cryopreservation and culture of different mammalian cells, specially germ cells.

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PN - WO2009029937 A2 20090305
PD - 2009-03-05
PA - CELL LINE GENETICS LLC [US]; MEISNER LORRAINE F [US]; JOHNSON JULIE A [US]
IN - MEISNER LORRAINE F [US]; JOHNSON JULIE A [US]
TI - METHODS AND ASSAYS FOR SCREENING STEM CELLS
AB - The present invention provides methods and assays for screening cells, such as stem cells, for chromosomal aberrations. In particular, the present invention provides a rapid, sensitive assay platform for detecting high and low levels of chromosomal aberrations present in a cell

population. This includes, but is not limited to, detection of extra chromosomes (trisomies) as well as insertions of small segments that are undetectable using standard cytogenetic studies, wherein the abnormal cells comprise a low percentage of the total cell population.

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PN - WO2009027654 A1 20090305
PD - 2009-03-05
PA - UNIV EDINBURGH [GB]; MORRISONM GILLIAN MARY [GB]; BRICKMAN JOSHUA MARK [GB]; OIKONOMOPOULOU IFIGENIA [GB]
IN - MORRISONM GILLIAN MARY [GB]; BRICKMAN JOSHUA MARK [GB]; OIKONOMOPOULOU IFIGENIA [GB]
TI - REGIONALISED ENDODERM CELLS AND USES THEREOF
AB - The present invention relates to the generation of anterior definitive endoderm (ADE) cells from embryonic stem cells and the differentiation of such cells to, for example, pancreatic or liver cells. The invention also relates to cell lines, cell culture methods, cells markers and the like and their potential uses in a variety of applications.

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PN - WO2009026653 A1 20090305
PD - 2009-03-05
PA - MEDVET SCIENCE PTY LTD [AU]; ADELAIDE RES & INNOVATION PTY [AU]; KOBLAR SIMON ANDREA [AU]; GRONTHOS STAN [AU]; ARTHUR AGNIESZKA [AU]
IN - KOBLAR SIMON ANDREA [AU]; GRONTHOS STAN [AU]; ARTHUR AGNIESZKA [AU]
TI - NEUROPLASTICITY ASSAY
AB - An avian embryo model system is disclosed which provides an assay for investigating cellular and molecular mechanisms of neuroplasticity induced by stem/precursor cells and/or the effect of various agents (including stem/precursor cells) on neuronal development.

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PN - EP2029724 A2 20090304
PD - 2009-03-04
PA - ADVANCED CELL TECH INC [US]
IN - CHUNG YOUNG [US]; LANZA ROBERT [US]; KLIMANSKAYA IRINA V [US]
TI - DERIVATION OF EMBRYONIC STEM CELLS AND EMBRYO-DERIVED CELLS
AB - This present invention provides novel methods for deriving embryonic stem cells and embryo-derived cells from an embryo without requiring destruction of the embryo. The invention further provides cells and cell lines derived without embryo destruction, and the use of the cells for therapeutic and research purposes. It also relates to novel methods of establishing and storing an autologous stem cell line prior to implantation of an embryo, e.g., in conjunction with reproductive therapies such as IVF.

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PN - US2009111177 A1 20090430
PD - 2009-04-30
PA - UNIV ROCKEFELLER [US]
IN - BRIVANLOU ALI [US]; SATO NOBORU [US]; MEIJER LAURENT [FR]
TI - Maintenance of Embryonic Stem Cells by the GSK-3 Inhibitor 6-Bromoindirubin-3'-Oxime
AB - The present invention relates to methods for maintaining the undifferentiated state of embryonic stem cells without the use of a feeder layer by activating the Wnt signal transduction pathway or by inhibiting glycogen synthase kinase-3 activity by contacting the cell with, inter alia, 6-bromoindirubin-3'-oxime. The present invention also relates to embryonic stem cell lines and cells derived therefrom that have been isolated and cultured in the absence of a feeder layer.

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PN - US2009104697 A1 20090423
PD - 2009-04-23
IN - CIBELLI JOSE [US]; WEST MICHAEL D [US]; LANZA ROBERT [US]

TI - Method of differentiation of morula or inner cell mass cells and method of making lineage-defective embryonic stem cells
AB - An improved method of producing differentiated progenitor cells comprising obtaining inner cell mass cells from a blastocyst and inducing differentiation of the inner cell mass cells to produce differentiated progenitor cells. The differentiated progenitor cells may be transfected such that there is an addition, deletion or alteration of a desired gene. The differentiated progenitor cells are useful in cell therapy and as a source of cells for the production of tissues and organs for transplantation. Also provided is a method of producing a lineage-defective human embryonic stem cell.

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PN - US2009093054 A1 20090409
PD - 2009-04-09
PA - CELLARTIS AB [SE]
IN - SJOGREN ANITA [SE]; KILMARE EVA KARIN [SE]; ENERBACK SVEN [SE]; ERIKSSON PETER [SE]
TI - CRYOPRESERVATION OF HUMAN BLASTOCYST-DERIVED STEM CELLS BY USE OF A CLOSED STRAW VITRIFICATION METHOD
AB - An improved method for vitrification of biological cells, especially blastocyst-derived stem cells (BS cells). The method is very mild for the cells that remain viable after they have been thawed. The method comprises, i) transfer of the cells to a first solution (solution A), ii) optionally incubation of the cells in the first solution, iii) transfer the cells obtained in step i) or ii) to a second solution (solution B), iv) optionally incubation of the cells in the second solution, v) transfer of the cells obtained from step iii) or iv) into one or more closed straws with dimensions that allow a volume of at least 20 µl to be contained in them vi) sealing the one or more closed straws, and vii) vitrification of the one or more closed straws. An important feature of the present invention is the use of closed

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PN - US2009098650 A1 20090416
PD - 2009-04-16
PA - THROMB X N V [BE]
IN - SCHOONJANS LUC [BE]
TI - COMPOSITIONS FOR THE IN VITRO DERIVATION AND CULTURE OF EMBRYONIC STEM (ES) CELL LINES WITH GERMLINE TRANSMISSION CAPABILITY AND FOR THE CULTURE OF ADULT STEM CELLS
AB - The present invention describes novel compositions for deriving, maintaining and growing pluripotent and germ-line competent mammalian embryonic stem cells. The compositions of this invention refer to compositions comprising a 1) conditioned medium of a cell line expressing limited amounts of Leukemia Inhibitory Factor (LIF), 2) conditioned medium from a cell line transfected with mammalian LIF and 3) a medium supplemented with recombinant rabbit LIF. The present invention describes novel compositions for deriving, maintaining and growing adult human stem cells and/or adult early progenitor cells, preferably under stroma-free conditions and without added LIF and/or cytokines or growth factors. The media of the present invention are used for the generation of pluripotent and germ-line competent embryonic stem cells of mammals of which these cells were not obtained up to now. The media of the present invention are used for the generation of adult human stem cells and/or adult early progenitor cells. The present invention is also directed to a novel rabbit LIF and to nucleotides encoding the rabbit LIF and methods for the expression of recombinant rabbit LIF in the *Pichia pastoris* expression system.

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PN - US2009093055 A1 20090409
PD - 2009-04-09
IN - FISK GREGORY J [US]; INOKUMA MARGARET S [US]
TI - Islet Cells from Human Embryonic Stem Cells
AB - This disclosure provides a system for producing pancreatic islet cells from embryonic stem cells. Differentiation is initiated towards endoderm cells, and focused using reagents that promote emergence of islet precursors and mature insulin-secreting cells. High quality populations of islet cells can be produced in commercial quantities for use in research, drug screening, or regenerative medicine.

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PN - US2009092616 A1 20090409
PD - 2009-04-09
PA - BURNHAM INST FOR MEDICAL RES [US]
IN - SNYDER EVAN YALE [US]; GONZALEZ RODOLFO [US]
TI - ZNF206: A Novel Regulator of Embryonic Stem Cell Self-renewal and Pluripotency
AB - We have identified ZNF206, a novel repressor of human embryonic stem cell (hESC) differentiation. Repressing extra-embryonic endoderm development preserves the pluripotent state of human embryonic stem cells, and, conversely downregulating expression of ZNF206 in hESCs causes them to upregulate the expression of genes associated with the extra-embryonic endodermal lineage, down-regulate genes associated with the pluripotent state, and may lead to the further emergence of genes associated with even more differentiated lineages and phenotypes.

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PN - US2009087907 A1 20090402
PD - 2009-04-02
IN - PEBAY ALICE [AU]; MICHALSKA ANNA E [AU]; PERA MARTIN F [AU]
TI - Compositions and Methods for Growth of Pluripotent Cells
AB - A method of propagating embryonic stem (ES) cells in an undifferentiated state, while maintaining both the pluripotency and the cells normal genotype is disclosed. The method comprises using recombinantly produced protein domains to attach human embryonic stem cells to the surface of a bioreactor. The ES cells are supplied with nutrients while they held in place by the recombinantly produced protein domains which may be chosen from Laminin G domain, Fibronectin domain 2, Fibronectin domain 3, Nidogen G2 domain, Nidogen G3 domain, Vitronectin somatomedin B domain, and Vitronectin somatomedin C terminal domain. Useful molecules are characterized by a high binding affinity for hES cells and a molecular weight of about 50 kDa+/-20%.

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PN - US2009081251 A1 20090326
PD - 2009-03-26
PA - VIVALIS [FR]
IN - MEHTALI MAJID [FR]; CHAMPION-ARNAUD PATRICK [FR]; LEON ARNAUD [FR]
TI - Production of Viral Vaccines in Suspension on Avian Embryonic Derived Stem Cell Lines
AB - The present invention relates to the development and manufacturing of viral vaccines, particularly the industrial production of viral vectors and vaccines, and more particularly the use of avian embryonic stem cells, preferably the EBx cell line derived from chicken embryonic stem cells, for the production of viral vectors and viruses; the invention is particularly useful for the industrial production of viral vaccines to prevent viral infection of humans and animals.

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PN - US2009075374 A1 20090319
PD - 2009-03-19
IN - PALECEK SEAN P [US]; DE PABLO JUAN J [US]; JI LIN [US]; METALLO CHRISTIAN M [US]
TI - METHODS OF GENERATING EPITHELIAL LINEAGE CELLS FROM EMBRYOID BODIES AND PLURIPOTENT CELLS
AB - Methods of generating p63-positive cells from embryoid bodies and pluripotent cells by culturing the cells in the presence of a retinoid and optionally a bone morphogenetic protein, such that the cells express at least p63. The p63-positive cells can be further cultured without the retinoid and optional bone morphogenetic protein to K14-positive cells. The K14-positive cells can be further cultured into various terminally differentiated cell types of the epithelial lineage.

INDUCED EMBRYONIC STEM CELLS/ DEDIFFERENTIATION OF CELLS –4 documents

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PN - WO2009032456 A2 20090312
PNFP - WO2009032456 A3 20090423
PD - 2009-03-12
PA - PRIMEGEN BIOTECH LLC [US]; KANNEMEIER CHRISTIAN [US]; MARH JOEL SAE WON [US]; HOWERTON KYLE [US]; SUNDSMO JOHN [US]
IN - KANNEMEIER CHRISTIAN [US]; MARH JOEL SAE WON [US]; HOWERTON KYLE [US]; SUNDSMO JOHN [US]
TI - NON-VIRAL DELIVERY OF TRANSCRIPTION FACTORS THAT REPROGRAM HUMAN SOMATIC CELLS INTO A STEM CELL-LIKE STATE
AB - Disclosed herein are cellular compositions, stable continuous cell cultures, reporter cell lines, pharmaceutical preparations, cell penetrable pluripotent stem cells transcription factors and methods related thereto, related to reprogrammed somatic cells.

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PN - WO2009032194 A1 20090312
PD - 2009-03-12
PA - WHITEHEAD BIOMEDICAL INST [US]; CHEVALIER BRETT [US]; MARSON ALEXANDER [US]; YOUNG RICHARD A [US]; FOREMAN RUTH [US]; JAENISCH RUDOLF [US]
IN - CHEVALIER BRETT [US]; MARSON ALEXANDER [US]; YOUNG RICHARD A [US]; FOREMAN RUTH [US]; JAENISCH RUDOLF [US]
TI - WNT PATHWAY STIMULATION IN REPROGRAMMING SOMATIC CELLS
AB - The invention provides compositions and methods of use in reprogramming somatic cells. Compositions and methods of the invention are of use, e.g., for generating or modulating (e.g., enhancing) generation of induced pluripotent stem cells by reprogramming somatic cells. The reprogrammed somatic cells are useful for a number of purposes, including treating or preventing a medical condition in an individual. The invention further provides methods for identifying an agent that reprograms somatic cells to a pluripotent state and/or enhances the speed and/or efficiency of reprogramming. Certain of the compositions and methods relate to modulating the Wnt pathway.

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PN - EP2046947 A2 20090415
PD - 2009-04-15
PA - METAPONTUM AGROBIOS S R L [IT]
IN - CIFARELLI ROSA ANNA [IT]; CELLINI FRANCESCO [IT]; DI LIDDO ROSA [IT]; PARNIGOTTO PIER PAOLO [IT]
TI - METHOD FOR THE PRODUCTION OF MULTIPOTENT STEM CELLS, RELATIVE KITS AND USES IN THE MEDICAL FIELD
AB - The invention relates to a method for the production of multipotent stem cells starting from highly differentiated adult somatic cells of mammals or their precursors comprising the demethylating treatment phase of highly differentiated cells with 5' Aza 2' cytidine and relative kits and uses in the medical field.

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PN - US2009068742 A1 20090312
PD - 2009-03-12
IN - YAMANAKA SHINYA [JP]
TI - Nuclear Reprogramming Factor
AB - There is provided a nuclear reprogramming factor for a somatic cell, which comprises a gene product of each of the following three kinds of genes: an Oct family gene, a Klf family gene, and a Myc family gene, as a means for inducing reprogramming of a differentiated cell to conveniently and highly reproducibly establish an induced pluripotent stem cell having pluripotency and growth ability similar to those of ES cells without using embryo or ES cell.

GRANTED PATENTS- PUBLISHED "B" SPECS

ADULT STEM CELLS- 17 DOCUMENTS

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GRANTED- 28-04-2009

PNFP - **US7524505** B2 20090428

PA - SCHWEITZER BIOTECH COMPANY LTD [TW]

IN - LIN CHAI-CHING SHIRLEY [TW]; KUO TSUN-YUNG [TW]; LIN YUN-JENG [TW]

TI - COMPOSITIONS AND METHODS FOR DUAL THERAPIES OF HAIR GRAYING AND BALDING IN FOLLICULAR DELIVERY SYSTEMS

AB - The present invention provides comprehensive compositions for treating problems associated with hair graying and balding via the incorporation of: (i) the cell growth factor of HSCF to induce the migration of melanocyte stem cells and keratinocyte stem cells and then to increase the growth of melanocytes and keratinocytes in hair follicles, (ii) a formula of amino acids and vitamins to provide the nutritional factors for hair growth and pigmentation, and (iii) minoxidil to enhance the function of HSCF on hair re-growth. The compositions comprising at least one of (i), (ii) or (iii) are administered on skin and/or scalp through liposome in the follicular delivery systems, including penetration enhancers and suitable carrier bases. The compositions packaged in liposome in the follicular delivery systems in this invention has been proven to reach the dermis from the skin surface within 15-30 min.

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GRANTED- 28-04-2009

PNFP - **US7524490** B2 20090428

PA - UNIV TEXAS [US]

IN - GENG YONG-JIAN [US]

TI - Clusterin-mediated inhibition of apoptosis via stromal bone marrow cell delivery to a cardiac site

AB - Methods and compositions are disclosed for inhibiting, deterring or preventing apoptosis of cardiac myocytes, transplanted stem cells, vascular stem cells, and vascular smooth muscle cells by means of expressing or synthesizing clusterin. Also disclosed are methods and compositions for producing recombinant clusterin, or its biologically active peptides, and for induction of clusterin-associated lipoproteins or enzymes for deterring or preventing inflammatory injury and apoptosis induced by oxLDL, oxysterols, cytokines, and Fas Ligand. Also disclosed is an induction method and composition for enhancing expression of ALDH and ALDH-associated enzymes or co-factors to prevent cytotoxicity or detoxification. Therapeutic methods providing new expression or overexpression of clusterin in vascular or cardiac tissue are expected to inhibit the formation of atherosclerotic lesions, stabilize existing atherosclerotic plaques, and repair failing or damaged cardiac tissue.

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GRANTED- 31-03-2009

PNFP - **US7510877** B2 20090331

PA - UNIV MICHIGAN [US]

IN - YILMAZ OMER H [US]; KIEL MARK J [US]; MORRISON SEAN [US]; IWASHITA TOSHIHIDE [US]

TI - Hematopoietic stem cell identification and isolation

AB - The present invention relates to methods of identifying, collecting and isolating hematopoietic stem cells (HSCs) and compositions of purified HSCs. Specifically, the present invention provides methods of isolating and purifying CD150+ HSCs, CD48- HSCs, and CD244- HSCs. The present invention also relates to purified cell samples with enriched CD150+ HSCs, CD48- HSCs, and CD244- HSCs populations, as well as methods of treating subjects with such compositions.

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GRANTED- 22-04-2009

PNFP - **EP1516922** B1 20090422

PA - STEINWACHS MATTHIAS [CH]

IN - STEINWACHS MATTHIAS [CH]

TI - Apparatus for use in the regeneration of structured human tissue

AB - Apparatus for use in the regeneration of structured human tissue comprising a pair of opposed surfaces of bio material or a synthetic polymer material, each surface carrying an active bio layer which can interact with stem cells from bone marrow, and which can be moved from an open position where they are spaced apart to a closed position in which they are closer together to form a multi layer or sandwich construction

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GRANTED- 07-04-2009

PNFP - **US7514075** B2 20090407

PA - CYTORI THERAPEUTICS INC [US]

IN - HEDRICK MARC H [US]; FRASER JOHN K [US]; SCHULZKI MICHAEL J [US]; BYRNES BOBBY [US]; CARLSON GRACE [US]; SHANAHAN ROBERT K [US]

TI - Systems and methods for separating and concentrating adipose derived stem cells from tissue

AB - Systems and methods are described that are used to separate cells from a wide variety of tissues. In particular, automated systems and methods are described that separate regenerative cells, e.g., stem and/or progenitor cells, from adipose tissue. The systems and methods described herein provide rapid and reliable methods of separating and concentrating regenerative cells suitable for re-infusion into a subject.

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GRANTED- 28-04-2009

PNFP - **US7524489** B2 20090428

PA - ETHICON INC [US]

IN - MESSINA DARIN J [US]; MISTRY SANJAY [US]; HARMON ALEXANDER M [US]; HARRIS IAN ROSS [US]; KIHM ANTHONY J [US]; SEYDA AGNIESZKA [US]; YI CHIN-FENG [US]

TI - Regeneration and repair of neural tissue using postpartum-derived cells

AB - Cells derived from postpartum umbilicus and placenta are disclosed. Pharmaceutical compositions, devices and methods for the regeneration or repair of neural tissue using the postpartum-derived cells are also disclosed.

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GRANTED- 03-03-2009

PNFP - **US7498170** B2 20090303

OPD - 1994-08-12

PA - UNIV MICHIGAN [US]

IN - LONG MICHAEL W [US]; MANN KENNETH G [US]

TI - Bone precursor cells: compositions and methods

AB - Disclosed are compositions of bone precursor cells and methods for their preparation and use. Bone precursor cells are cells which are not hematopoietic and which can differentiate into osteoblasts upon exposure to a bone growth factor and deposit calcium into the extracellular matrix. Such bone precursor cells are useful in the treatment of certain bone related disorders and diseases, such as osteoporosis, or in promoting fracture repair. In addition, methods of differentiating bone precursor cells into osteoblasts, and other diagnostic and even prognostic methods are provided.

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GRANTED- 28-04-2009

PNFP - **US7524500** B2 20090428

PA - THERAPURE BIOPHARMA INC [CA]

IN - MUELLER SUSAN [CA]; BELL DAVID [CA]; MATTHEWS KATHRYN EMMA [CA]

TI - Method of stimulating stem cells

AB - Methods and compositions for stimulating the growth, proliferation, differentiation and/or mobilization of stem and/or progenitor cells are described. The method involves administering an effective amount of a substance which can activate the CD163 hemoglobin scavenger receptor signal transduction pathway. The methods and compositions are useful in stimulating hematopoiesis and in treating a wide range of conditions including cytopenias, anemias and for use in preparing cells for transplantation.

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GRANTED- 07-04-2009
PNFP - **US7514074** B2 20090407
PA - OSIRIS THERAPEUTICS INC [US]
IN - PITTENGER MARK F [US]; GORDON STEPHEN L [US]; MACKAY ALASTAIR MORGAN [US]; MARTIN BRADLEY J [US]
TI - Cardiac muscle regeneration using mesenchymal stem cells
AB - Disclosed is a method for producing cardiomyocytes in vivo by administering to the heart of an individual a cardiomyocyte producing amount of mesenchymal stem cells. These cells can be administered as a liquid injectible or as a preparation of cells in a matrix which is or becomes solid or semi-solid. The cells can be genetically modified to enhance myocardial differentiation and integration. Also disclosed is a method for replacing cells ex vivo in a heart valve for implantation.

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GRANTED- 10-03-2009
PNFP - **US7501115** B2 20090310
PA - CYTORI THERAPEUTICS INC [US]
IN - FRASER JOHN K [US]; HEDRICK MARC H [US]
TI - Systems and methods for treating patients with processed lipoaspirate cells
AB - Cells present in processed lipoaspirate tissue are used to treat patients. Methods of treating patients include processing adipose tissue to deliver a concentrated amount of stem cells obtained from the adipose tissue to a patient. The methods may be practiced in a closed system so that the stem cells are not exposed to an external environment prior to being administered to a patient. Compositions that are administered to a patient include a mixture of adipose tissue and stem cells so that the composition has a higher concentration of stem cells than when the adipose tissue was removed from the patient.

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GRANTED- 03-03-2009
PNFP - **US7498171** B2 20090303
PA - ANTHROGENESIS CORP [US]
IN - HARIRI ROBERT J [US]; STIRLING DAVID I [US]; MOUTOUH-DE PARSEVAL LAURE A [US]; CHAN KYLE W H [US]
TI - Modulation of stem and progenitor cell differentiation, assays, and uses thereof
AB - The present invention relates to methods of modulating mammalian stem cell and progenitor cell differentiation. The methods of the invention can be employed to regulate and control the differentiation and maturation of mammalian, particularly human stem cells along specific cell and tissue lineages. The methods of the invention relate to the use of certain small organic molecules to modulate the differentiation of stem or progenitor cell populations along specific cell and tissue lineages, and in particular, to the differentiation of embryonic-like stem cells originating from a postpartum placenta or for the differentiation of early progenitor cells to a granulocytic lineage. Finally, the invention relates to the use of such differentiated stem or progenitor cells in transplantation and other medical treatments.

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GRANTED- 31-03-2009
PNFP - **US7510870** B2 20090331
PA - IND ACADEMIC COOP [KR]; CATHOLIC UNIVERSITY OF KOREA [KR]
IN - OH IL-HOAN [KR]
TI - STAT3 activated stem cell
AB - Stem cells modified to express activated form of STAT3 by genetic modification or protein delivery, and stem cells co-cultured with cells expressing activated form of STAT3 exhibit increased ex-vivo expansion and enhanced in-vivo regeneration accompanied by net increase in stem cell self-renewal as compared to control group.

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GRANTED- 17-03-2009
PNFP - **US7504099** B2 20090317
PA - YISSUM RES DEV CO [IL]

IN - GAZIT DAN [IL]; PELLED GADI [IL]; TURGEMAN GADI [IL]; HOFFMANN ANDREA [DE]; EBERLE PETER [DE]; GROSS GERHARD [DE]
TI - Methods of inducing or enhancing connective tissue repair
AB - This invention provides method for repairing, regenerating, treating, or inducing the repair of an injury, a defect or a condition of a connective tissue of a subject. This invention provides a method of regenerating, enhancing, inducing repair and/or development of connective tissue as a result of a defect, injury or condition of the connective tissue of a subject comprising the step of inserting an engineered cell which comprises a nucleic acid encoding a SMAD protein or variant thereof, so as to induce regeneration, repair and/or development of the connective tissue. This invention further provides methods of ex-vivo implantation of engineered cells into an injury, defect or condition of the connective tissue. This invention also provides a nucleic acid encoding a SMAD 8 protein variant, cells comprising such SMAD 8 variant, include mesenchymal stem cells, progenitor cells or cells derived from a connective tissue. Lastly, this invention provides SMAD 8 protein variant.

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GRANTED- 03-03-2009
PNFP - **US7498168** B2 20090303
PA - ODONTIS LTD [GB]
IN - SHARPE PAUL THOMAS [GB]
TI - Tooth progenitor cell and method for its production
AB - The invention relates to the use of a cultured stem cell to produce a tooth progenitor cell.

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GRANTED- 07-04-2009
PNFP - **US7514259** B2 20090407
PA - SCHEPENS EYE RES INST [US]
IN - YOUNG MICHAEL J [US]; KLASSEN HENRY J [US]; SHATOS MARIE A [US]; MIZUMOTO KEIKO [JP]
TI - Isolation and transplantation of retinal stem cells
AB - The present invention relates to the isolation, in vitro propagation, and transplantation and integration of non-pigmented retinal stem cells derived from the neuroretina of the eye, ex vivo and in vivo.

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GRANTED- 18-03-2009
PNFP - **EP1218489** B1 20090318
PA - CYBIOS LLC [US]
IN - YOUNG HENRY E [US]; LUCAS PAUL A [US]
TI - PLURIPOTENT EMBRYONIC-LIKE STEM CELLS, COMPOSITIONS, METHODS AND USES THEREOF
AB - (A2 A3 A9) The present invention relates to pluripotent stem cells, particularly to pluripotent embryonic-like stem cells. The invention further relates to methods of purifying pluripotent embryonic-like stem cells and to compositions, cultures and clones thereof. The present invention also relates to a method of transplanting the pluripotent stem cells of the present invention in a mammalian host, such as human, comprising introducing the stem cells, into the host. The invention further relates to methods of in vivo administration of a protein or gene of interest comprising transfecting a pluripotent stem cell with a construct comprising DNA which encodes a protein of interest and then introducing the stem cell into the host where the protein or gene of interest is expressed. The present invention also relates to methods of producing mesodermal, endodermal or ectodermal lineage-committed cells by culturing or transplantation of the pluripotent stem cells of the present invention.

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GRANTED- 15-04-2009
PNFP - **EP0922758** B1 20090415
PA - UNIV ROCKEFELLER [US]; MERIX BIOSCIENCE INC [US]
IN - STEINMAN RALPH M [US]; BHARDWAJ NINA [US]; SCHULER GEROLD [DE]
TI - Methods and compositions for obtaining mature dendritic cells

AB - We describe an improved method for generating sizable numbers of mature dendritic cells from nonproliferating progenitors in human blood. The first step or "priming" phase is a culture of T cell depleted mononuclear cells in medium supplemented with GM-CSF and IL-4 to produce immature dendritic cells. The second step or "differentiation" phase requires the exposure to dendritic cell maturation factor such as monocyte conditioned medium. Using this two-step approach, substantial yields are obtained. The dendritic cells derive from this method have all the features of mature cells. They include a stellate cell shape, nonadherence to plastic, and very strong T cell stimulatory activity. The mature dendritic cells produced according to this invention are useful for activating T cells.

EMBRYONIC STEM CELLS-10 DOCUMENTS

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GRANTED- 08-04-2009

PNFP - GB2432835 B 20090408

OPD - 2004-09-08

PA - WISCONSIN ALUMNI RES FOUND [US]

IN - THOMSON JAMES A [US]; LUDWIG TENNEILLE [US]

TI - Culturing human embryonic stem cells

AB - Previous methods for culturing human embryonic stem cells have required either fibroblast feeder cells or a medium, which has been exposed to fibroblast feeder cells in order to maintain the stem cells in an undifferentiated state. It has now been found that if high levels of fibroblast growth factor are used in a medium with gamma amino butyric acid, pipercolic acid, lithium and lipids, the stem cells will remain undifferentiated indefinitely through multiple passages, even without feeder cells or conditioned medium. A humanized matrix of human proteins can be used as a basement matrix to culture the cells. New lines of human embryonic stem cells made using these culture conditions, the medium and the matrix, will never have been exposed to animal cells, animal products, feeder cells or conditioned medium.

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GRANTED- 04-03-2009

PNFP - GB2446525 B 20090304

PA - RIKEN [JP]

IN - SASAI YOSHIKI [JP]; WATANABE KIICHI [JP]

TI - Stem cell culture medium and method

AB - Stem cells such as embryonic stem cells (ES cells), including human ES cells, are cultured in a medium comprising a ROCK inhibitor, and a stem cell culture medium, optionally serum free, comprises a ROCK inhibitor.

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GRANTED- 01-04-2009

PNFP - GB2431165 B 20090401

PA - GERON CORP [US]

IN - XU CHUNHUI [US]; LI YAN [US]; MANDALAM RAMKUMAR [US]; LEBKOWSKI

JANE S [US]

TI - Medium for growing human embryonic stem cells

AB - This disclosure provides an improved system for deriving culturing human pluripotent stem cells. Traditionally, pluripotent stem cells are cultured on a layer of mouse embryonic fibroblast feeder cells to prevent them from differentiating. In the system described here, the role of feeder cells is replaced by defined components added to the culture environment that support rapid proliferation without differentiation. The medium contains an isotonic buffer, a blend of essential nutrients such as protein and lipids, and an effective growth factor or combination of factors that promote proliferation while inhibiting differentiation. Culturing human embryonic stem cells in fresh medium on an extracellular matrix according to this invention causes the cells to expand surprisingly rapidly, while retaining the ability to differentiate into cells representing all three embryonic germ layers. This new culture system allows for bulk proliferation of pPS cells for commercial production of important products for use in drug screening and human therapy.

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GRANTED- 08-04-2009

PNFP - GB2429717 B 20090408

PA - ES CELL INT PTE LTD [SG]

IN - CROOK JEREMY MICAH [SG]; KRAVETS LUCY [SG]

TI - Cell preservation method

AB - The present invention provides a method for freezing a stem cell or a cell derived therefrom, the method including the steps of providing a cell suspension, performing ice nucleation on the cell suspension, and lowering the temperature of the ice nucleated cell suspension to a temperature sufficiently low to allow long term storage of the stem cell. The method is preferably used for the cryopreservation of human embryonic stem cells.

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GRANTED- 04-03-2009

PNFP - **GB2424226** B 20090304

PA - CELLARTIS AB [SE]

IN - LINDAHL ANDERS [SE]; KARLSSON ULRIKA [SE]

TI - Methods for clonal derivation of human blastocyst-derived stem cell lines

AB - Human blastocyst-derived stem cells (hBS) or hBS derived cells, such as, e.g., cells of endodermal, mesodermal, and ectodermal origin, are pluripotent cells with widespread potentials within the areas of e.g. therapeutic treatment, human developmental biology, and drug discovery processes. The present invention relates to a method for clonal derivation of human blastocyst-derived stem cells (hBS) or hBS derived cells. According to the present invention hBS cell colonies or hBS derived cell colonies are subjected to non-enzymatic treatment for dissociation of the cell colonies to one or more single cells, which are then separately cultivated in a serum based medium and/or serum based conditioned medium to obtain one or more cell clones capable of forming colonies.

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GRANTED- 10-03-2009

PNFP - **US7501281** B2 20090310

PA - MAINE MEDICAL CT RES INST [US]

IN - MACIAG LEGAL REPRESENTATIVE LORI [US]; KOLEV VIHREN [US]; VERDI JOSEPH M [US]

TI - Compositions, methods and kits related to thrombin, Notch signaling and stamatogenesis and growth of stem cells

AB - The present invention relates to methods based on the interactions of thrombin as a biological regulator. More specifically, the invention relates to the interactions of thrombin with regard to Notch signaling, Jagged1, PAR1, and cellular effects mediated thereby. The invention relates to the discovery that thrombin cleaves Jagged1 to produce non-membrane soluble Jagged1 (sJ1). The soluble Jagged1 protein can affect Notch signaling and, among other things, mediate the release of FGF-1 and/or IL-1alpha from a cell. The invention further relates to the role(s) of thrombin and signaling via Notch proteins and the effect on thrombosis, angiogenesis, and/or differentiation, among other processes. Moreover, the invention relates to discovery that thrombin, sJ1, and TRAP mediate, inter alia, rapid non-classical release of FGF-1, and proteins associated therewith (e.g., p40 Syn1 and S100A13, among others), and the effect growth and proliferation of a stem cell without loss of differentiation potential. Thus, the present invention relates to methods of clonally expanding a pluripotent stem cell while preserving the differentiation potential of the cell, a process termed "stamatogenesis."

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GRANTED- 07-04-2009

PNFP - **US7514260** B2 20090407

PA - WICELL RES INST INC [US]

IN - XU REN-HE [US]; THOMSON JAMES A [US]

TI - Feeder independent extended culture of embryonic stem cells

AB - Previous methods for culturing human embryonic stem cells have required either fibroblast feeder cells or a medium which has been exposed to fibroblast feeder cells in order to

maintain the stem cells in an undifferentiated state. It has now been found that if an antagonist of bone morphogenic protein is added to the medium in which the stem cells are cultured, together with fibroblast growth factor, the stem cells will remain undifferentiated indefinitely, even without feeder cells or conditioned medium.

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GRANTED- 14-04-2009

PNFP - **US7517521** B2 20090414

PA - UNIV UTAH RES FOUND [US]

IN - MAYER-PROSCHEL MARGOT [US]; RAO MAHENDRA S [US]; TRESKO PATRICK A [US]; MESSINA DARIN J [US]

TI - Method of isolating human neuroepithelial precursor cells from human fetal tissue

AB - A method for isolating human neuroepithelial precursor cells from human fetal tissue by culturing the human fetal cells in fibroblast growth factor and chick embryo extract and immunodepleting from the cultured human fetal cells any cells expressing A2B5, NG2 and eNCAM is provided. In addition, methods for transplanting these cells into an animal are provided. Animals models transplanted with these human neuroepithelial precursor cells and methods for monitoring survival, proliferation, differentiation and migration of the cells in the animal model via detection of human specific markers are also provided.

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GRANTED- 31-03-2009

PNFP - **US7510876** B2 20090331

PA - CYTHERA INC [US]

IN - D AMOUR KEVIN ALLEN [US]; AGULNICK ALAN D [US]; BAETGE EMMANUEL E [US]

TI - Definitive endoderm

AB - Disclosed herein are cell cultures comprising definitive endoderm cells and methods of producing the same. Also disclosed herein are cell populations comprising substantially purified definitive endoderm cells as well as methods for enriching, isolating and purifying definitive endoderm cells from other cell types.

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GRANTED- 17-03-2009

PNFP - **US7504257** B2 20090317

PA - ES CELL INT PTE LTD [SG]

IN - REUBINOFF BENJAMIN EITHAN [IL]; PERA MARTIN FREDERICK [AU]; BEN-HUR TAMIR [IL]

TI - Embryonic stem cells and neural progenitor cells derived therefrom

AB - The present invention provides undifferentiated human embryonic stem cells, methods of cultivation and propagation and production of differentiated cells. In particular it relates to the production of human ES cells capable of yielding somatic differentiated cells in vitro, and committed progenitor cells such as neural progenitor cells capable of giving rise to mature somatic cells including neural cells and/or glial cells and uses thereof. The invention also provides methods that generate in vitro and in vivo models of controlled differentiation of ES cells towards the neural lineage. The model, and the cells that are generated along the pathway of neural differentiation may be used for the study of the cellular and molecular biology of human neural development, for the discovery of genes, growth factors, and differentiation factors that play a role in neural differentiation and regeneration, for drug discovery and for the development of screening assays for teratogenic, toxic and neuroprotective effects.

INDUCED EMBRYONIC STEM CELLS/ DEDIFFERENTIATION OF CELLS - 2 documents

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GRANTED- 14-04-2009

PNFP - **US7517686** B2 20090414

PA - BLASTICON BIOTECHNOLOGISCHE FO [DE]

IN - KREMER BERND KARL FRIEDRICH [DE]; FAENDRICH FRED [DE]; RUHNKE MAREN NEE SCHULZE [DE]
 TI - Dedifferentiated, programmable stem cells of monocytic origin, and their production and use
 AB - The invention relates to the production of adult dedifferentiated, programmable stem cells from human monocytes by cultivation of monocytes in a culture medium which contains M-CSF and IL-3. The invention further relates to pharmaceutical preparations, which contain the dedifferentiated, programmable stem cells and the use of these stem cells for the production of target cells and target tissue.

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 GRANTED- 25-03-2009
 PNFP - EP1384775 B1 20090325
 PA - FOOD INDUSTRY RES AND DEV [TW]
 IN - HWANG SHIAW-MIN [TW]
 TI - Somatic pluripotent cells
 AB - The present invention discloses a cultured somatic animal cell having a normal karyotype; the cell develops into an embryoid body when induced in vitro, or develops into a teratoma when introduced into a SCID mouse. Also disclosed is a method of producing such a cell.

ANNEX A

Search strategy

SS Results

- 1 7921 /EC/ECNO OR C12N5/06B2P, C12N5/06B3, C12N5/06B6P, C12N5/06B8P, C12N5/06B11P, C12N5/06B12P, C12N5/06B14P, C12N5/06B18P, C12N5/06B20P, C12N5/06B21P, C12N5/06B22P, C12N5/06B26P, C12N5/06B28P, C12N5/06B30P
- 2 8112 *M4/PR/ALL
- 3 7396 *M4/PR/ALL
- 4 3370 *M4/PR/ALL
- 5 0 *M4/PR/ALL
- 6 0 *M4/PR/ALL
- 7 0 *M4/PR/ALL
- 8 2 *M4/PR/ALL
- 9 11844 1: 8
- 10 7609 9 AND (STEM? OR PLURIPOT+ OR EMBRYONIC OR PROGENITOR?)
- 11 27924 (STEM? OR PLURIPOT+ OR EMBRYONIC OR PROGENITOR?) 3D CELL?
- 12 31036 1 OR 10 OR 11
- 13 31036 ..LIM 12
- 14 14976 OR GB/PN, EP/PN, WO/PN
- 15 14976 ..LIM 14
- 16 **347 PD<=2009-04 AND PD>2009-02-28 – Viewed- “A” specs**
..LIM ALL
- 17 31036 ..LIM 12
- 18 4004 /PN OR (EP S B?), (GB S B?), (US S B?)
- 19 4004 ..LIM 18
- 20 17 200903+/PNFP
- 21 19 200904+/PNFP
- 22 **36 20 OR 21 – Viewed- “B” specs**

Key to ECLA classification marks searched:

C12N5/06B2P (1355) [N: Pluripotent cells, e.g. embryonic stem cells (ES)]

C12N5/06B3 . . . (489) [N: Non-embryonic pluripotent cells, e.g. MASC] [N0209]

C12N5/06B6 . . . (87) [N: Muscle cells] [N9703] [C0209]
C12N5/06B6P (269) [N: Stem cells; Progenitor cells, e.g. satellite cells] [N9703]

C12N5/06B8 . . . (451) [N: Cells of the nervous system] [N9703]
C12N5/06B8P (1113) [N: Stem cells; Progenitor cells; Precursor cells] [N9703]

C12N5/06B11 . . . (360) [N: Cells from the blood or the immune system] [N0305]
C12N5/06B11P (1972) [N: Haematopoietic stem cells; Uncommitted or multipotent progenitors]

C12N5/06B12 . . . (285) [N: Epithelial cells (cornea, eye epithelium C12N5/06B8C)]
C12N5/06B12P (239) [N: Stem cells; Progenitor cells; Precursor cells] [N9703]

C12N5/06B14 . . . (674) [N: Hepatocytes] [N9703]
C12N5/06B14P (254) [N: Stem cells; Progenitor cells; Precursor cells; Oval cells]

C12N5/06B18 . . . (651) [N: Osteoblasts; Osteocytes; Odontoblasts]
C12N5/06B18P (164) [N: Stem cells; Progenitor cells; Precursor cells] [N9703]

C12N5/06B20 . . . (1118) [N: Chondrocytes] [N9703]
C12N5/06B20P (53) [N: Stem cells; Progenitor cells; Precursor cells] [N0305]

C12N5/06B21 . . . (104) [N: Cells from bone marrow stroma] [N0305]
C12N5/06B21P (1072) [N: Mesenchymal stem cells] [N0305]

C12N5/06B22 . . . (975) [N: Pancreatic cells]
C12N5/06B22P (173) [N: Stem cells; Progenitor cells; Precursor cells] [N0205]

C12N5/06B26 . . . (325) [N: Fat cells, e.g. adipocytes] [N9703]
C12N5/06B26P (259) [N: Stem cells; Progenitor cells, e.g. adipose stroma progenitors; precursor cells] [N0205]

C12N5/06B28 . . . (661) [N: Endothelial cells (eye endothelium C12N5/06B8C)] [N9703]
C12N5/06B28P (279) [N: Stem cells; Progenitor cells; Precursor cells] [N0209]

C12N5/06B30 . . . (548) [N: Tumour cells; Cancer cells] [N9703] [C0205]
C12N5/06B30P (79) [N: Stem cells; Progenitor cells; Precursor cells] [N0608]